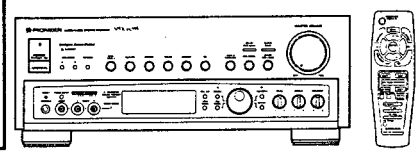
PIONEER®
The Art of Entertainment

Service Manual



ORDER NO.
RRV1424

AUDIO/VIDEO STEREO RECEIVER

VSX-605S
VSX-505S

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Type	Model		Power Requirement	Remarks
	VSX-605S	VSX-505S		
KUXJ	O	O	AC120V	
KCXJ	O	O	AC120V	

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PIONEER ELECTRONIC CORPORATION 4-1, Meguro 1-Chome, Meguro-ku, Tokyo 153, Japan
PIONEER ELECTRONICS SERVICE, INC. P.O. Box 1760, Long Beach, CA 90801-1760, U. S. A.
PIONEER ELECTRONIC (EUROPE) N.V. Haven 1087 Keetberglaan 1, 9120 Melsele, Belgium
PIONEER ELECTRONICS ASIACENTRE PTE. LTD. 501 Orchard Road, #10-00 Lane Crawford Place, Singapore 0923

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1. SAFETY INFORMATION

This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.
Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING

Lead in solder used in this product is listed by the California Health and Welfare agency as a known reproductive toxicant which may cause birth defects or other reproductive harm (California Health & Safety Code, Section 25249.5).
When servicing or handling circuit boards and other components which contain lead in solder, avoid unprotected skin contact with the solder. Also, when soldering do not inhale any smoke or fumes produced.

NOTICE

(FOR CANADIAN MODEL ONLY)

Fuse symbols (fast operating fuse) and/or (slow operating fuse) on PCB indicate that replacement parts must be of identical designation.

REMARQUE

(POUR MODÈLE CANADIEN SEULEMENT)

Les symboles de fusible (fusible de type rapide) et/ou (fusible de type lent) sur CCI indiquent que les pièces de remplacement doivent avoir la même désignation.

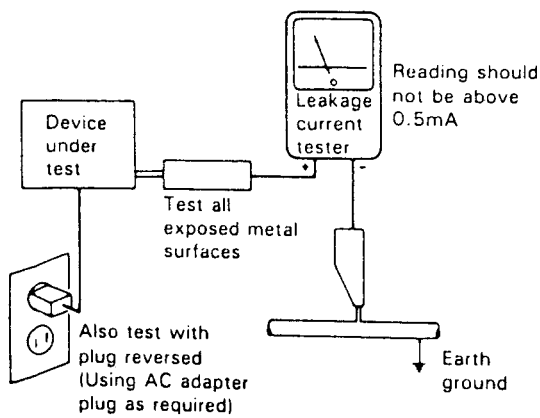
(FOR USA MODEL ONLY)

1. SAFETY PRECAUTIONS

The following check should be performed for the continued protection of the customer and service technician.

LEAKAGE CURRENT CHECK

Measure leakage current to a known earth ground (water pipe, conduit, etc.) by connecting a leakage current tester such as Simpson Model 229-2 or equivalent between the earth ground and all exposed metal parts of the appliance (input/output terminals, screwheads, metal overlays, control shaft, etc.). Plug the AC line cord of the appliance directly into a 120V AC 60Hz outlet and turn the AC power switch on. Any current measured must not exceed 0.5mA.


Leakage current tester
Reading should not be above 0.5mA
Device under test
Test all exposed metal surfaces
Also test with plug reversed (Using AC adapter plug as required)
Earth ground

AC Leakage Test

ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

2. PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in the appliance have special safety related characteristics. These are often not evident from visual inspection nor the protection afforded by them necessarily can be obtained by using replacement components rated for voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.

Electrical components having such features are identified by marking with a ⚠ on the schematics and on the parts list in this Service Manual.
The use of a substitute replacement component which dose not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire, or other hazards.

Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current PIONEER Service Manual. A subscription to, or additional copies of, PIONEER Service Manual may be obtained at a nominal charge from PIONEER.

2. EXPLODED VIEWS, PACKING AND PARTS LIST

NOTES:

- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the parts. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by " ⊙ " are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*

2.1 PACKING

■ CONTRAST OF VSX-605S/KUXJ, KCXJ, VSX-505S/KUXJ AND KCXJ

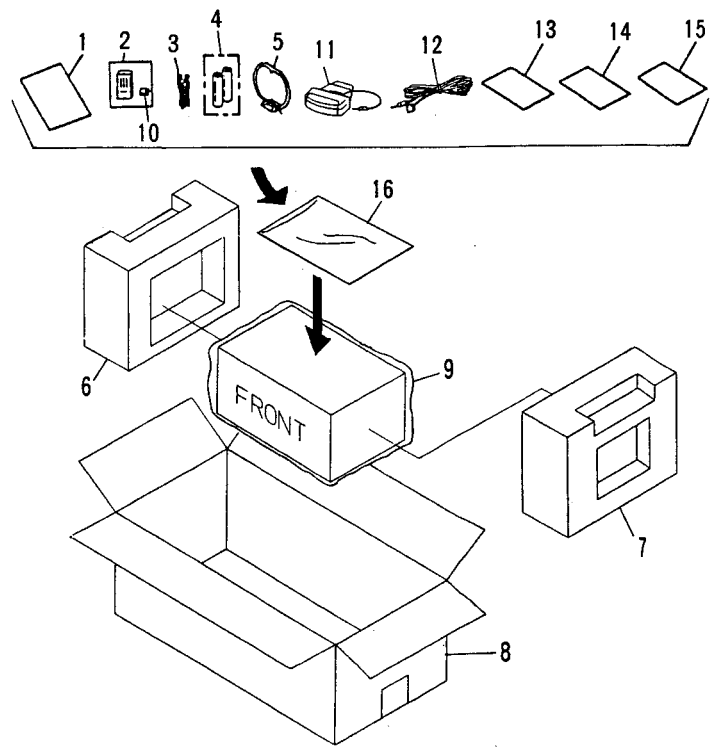
VSX-605S/KUXJ, KCXJ, VSX-505S/KUXJ and KCXJ have the same construction except for the following:

Mark	No.	Symbol & Description	Part No.				Remarks
			VSX-605S		VSX-505S		
			KUXJ	KCXJ	KUXJ	KCXJ	
	1	Operating instructions (English)	ARB7059	ARB7059	ARB7060	ARB7060	
	1	Operating instructions (French)	Not Used	ARC7090	Not Used	ARC7117	
	2	Remote control unit (CU-VSX102)	AXD7081	AXD7081	Not Used	Not Used	*
	2	Remote control unit (CU-VSX104)	Not Used	Not Used	AXD7082	AXD7082	*
NSP	4	Battery (R6P, AA)	VEM-013	VEM-013	Not Used	Not Used	
NSP	4	Battery (LR6P, AA)	Not Used	Not Used	AEX1007	AEX1007	
	8	Packing case	AHD7247	AHD7247	AHD7250	AHD7250	
	10	Battery cover	AZN7187	AZN7187	Not Used	Not Used	
	11	Main repeater	AXF7001	AXF7001	Not Used	Not Used	
	12	Mini repeater	ADF1002	ADF1002	Not Used	Not Used	
	13	Attention sheet	ARM7006	ARM7006	Not Used	Not Used	
NSP	14	Inportant card	ARW7005	ARW7005	Not Used	Not Used	
NSP	15	Warranty card	ARY1051	ARY1075	ARY1051	ARY1075	

Note *: Refer to "10. REMOTE CONTROL UNIT".

■ PARTS LIST FOR VSX-605S/KUXJ

Mark	No.	Description	Part No.
	1	Operating instructions (English)	ARB7059
	2	Remote control unit (CU-VSX102)	AXD7081
	3	FM antenna	ADH1017
NSP	4	Battery (R6P, AA)	VEM-013
	5	Loop antenna	ATB7004
	6	Side pad L	AHA7044
	7	Side pad R	AHA7045
	8	Packing case	AHD7247
	9	Packing sheet	AHG7010
	10	Battery cover	AZN7187
	11	Main repeater	AXF7001
	12	Mini repeater	ADF1002
	13	Attention sheet	ARM7006
NSP	14	Inportant card	ARW7005
NSP	15	Warranty card	ARY1051
NSP	16	Polyethylen bag	AHG1217



2.2 EXTERIOR

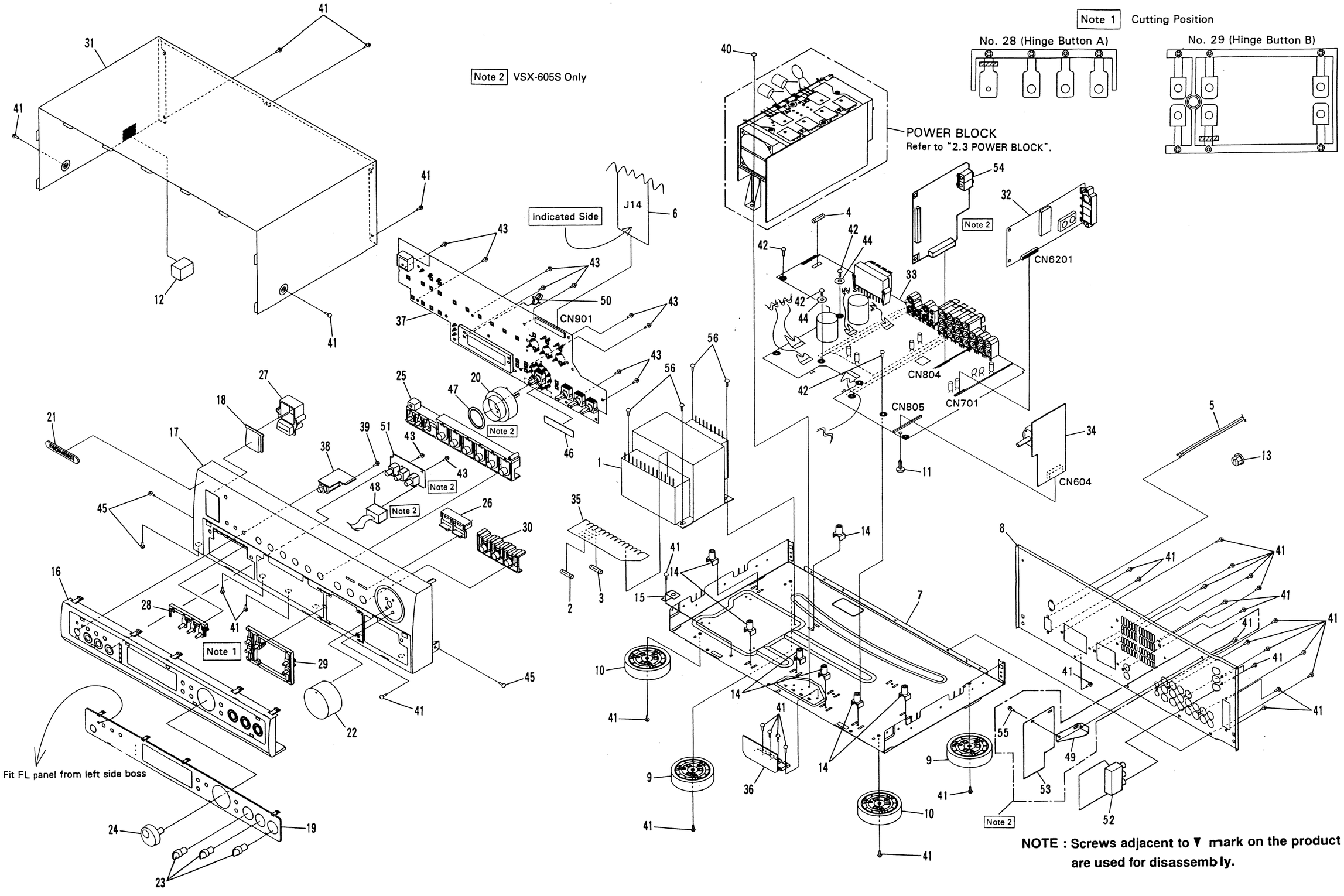
■ CONTRAST OF VSX-605S/KUXJ, KCXJ, VSX-505S/KUXJ AND KCXJ

VSX-605S/KUXJ, KCXJ, VSX-505S/KUXJ and KCXJ have the same construction except for the following:

Mark	No.	Symbol & Description	Part No.				Remarks
			VSX-605S		VSX-505S		
			KUXJ	KCXJ	KUXJ	KCXJ	
	8	Rear panel	ANC7316	ANC7316	ANC7319	ANC7319	
	9	Leg assy	AMR2634	AMR2634	Not Used	Not Used	
	9	Insulator assy	Not Used	Not Used	DXA1490	DXA1490	
	10	Leg assy	AMR2633	AMR2633	Not Used	Not Used	
	10	Insulator	Not Used	Not Used	PNW1912	PNW1912	
	16	Sub panel	AAP7010	AAP7010	AAP7012	AAP7012	
	17	Front panel	AMB7311	AMB7311	AMB7314	AMB7314	
	19	FL panel	AAK7233	AAK7233	AAK7234	AAK7234	
	20	Jog ring	Not Used	Not Used	AAK7129	AAK7129	
	20	GU. I lens	AAK7128	AAK7128	Not Used	Not Used	
	28	Hinge button A	AAD7159	AAD7159	Not Used	Not Used	
	33	PS AND FUNC ASSY	AWZ8185	AWZ8185	AWZ8187	AWZ8187	
	36	REG. ASSY	AWZ7925	AWZ7925	AWZ7592	AWZ7592	
	37	FL AND UCOM ASSY	AWZ8192	AWZ8192	AWZ8194	AWZ8194	
	47	PVC sheet	AEC7035	AEC7035	Not Used	Not Used	
NSP	48	Housing 5P shield	ADX1653	ADX1653	Not Used	Not Used	
NSP	49	PCB holder	ANG7085	ANG7085	Not Used	Not Used	
	50	Cable holder	AEC7019	AEC7019	Not Used	Not Used	
	51	FRONT AV ASSY	AWZ8197	AWZ8197	Not Used	Not Used	
	52	DSS FUNC ASSY	AWZ8198	AWZ8198	AWZ8200	AWZ8200	
	53	C.G UCOM ASSY	AWK7300	AWK7300	Not Used	Not Used	
	54	GUI AND UCOM ASSY	AWQ7006	AWQ7006	Not Used	Not Used	
	55	Push rivet	AEC7025	AEC7025	Not Used	Not Used	

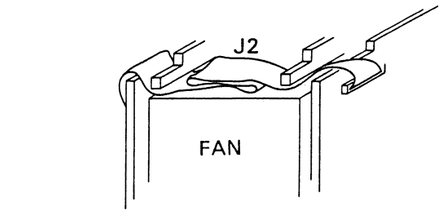
■ PARTS LIST FOR VSX-605S/KUXJ

Mark	No.	Description	Part No.
⚠	1	Power transformer (T1)	ATS7049
⚠	2	Fuse (1.25A, FU3)	REK1076
⚠	3	Fuse (1.25A, FU4)	REK1076
⚠	4	Fuse (10A, FU1)	REK1087
⚠	5	AC power cord	PDG1015
	6	Flexible cable (J14)	ADD7018
NSP	7	Chassis	ANA7016
	8	Rear panel	ANC7316
	9	Leg assy	AMR2634
	10	Leg assy	AMR2633
	11	PCB support	AEC1581
	12	Rubber spacer	AEC7034
	13	Cord stopper	CM-22C
	14	PCB mold	AMR2533
NSP	15	PCB holder	ANG7040
	16	Sub panel	AAP7010
	17	Front panel	AMB7311
	18	IR filter	AAK7123
	19	FL panel	AAK7233
	20	GU. I lens	AAK7128
	21	Name plate	PAM1608
	22	Round knob L	AAB1390
	23	Round knob S	AAB7047
	24	Jog knob	AAB7048
	25	Function button	AAD7156
	26	Illumi button	AAD7157
	27	Power button	AAD7158
	28	Hinge button A	AAD7159
	29	Hinge button B	AAD7160
	30	Surround button	AAD7161
	31	Bonnet case	ANE7047
	32	FM/AM TUNER MODULE	AXQ3112
	33	PS AND FUNC ASSY	AWZ8185
	34	VOL. ASSY	AWZ8207
NSP	35	TRANS ASSY	AWZ7591
	36	REG. ASSY	AWZ7925
	37	FL AND UCOM ASSY	AWZ8192
NSP	38	H. P. ASSY	AWZ8196
	39	Screw	ABA7009
	40	Screw	ABA1147
	41	Screw	BBZ30P080FZK
	42	Screw	BBZ30P200FMC
	43	Screw	BPZ26P080FMC
NSP	44	Washer	AEE7002
	45	Screw	BBZ30P080FMC
NSP	46	Adhesive double coated tape	AEH1025
	47	PVC sheet	AEC7035
NSP	48	Housing 5P shield	ADX1653
NSP	49	PCB holder	ANG7085
	50	Cable holder	AEC7019
	51	FRONT AV ASSY	AWZ8197
	52	DSS FUNC ASSY	AWZ8198
	53	C. G UCOM ASSY	AWK7300
	54	GUI AND UCOM ASSY	AWQ7006
	55	Push rivet	AEC7025
	56	Screw	ABA7019

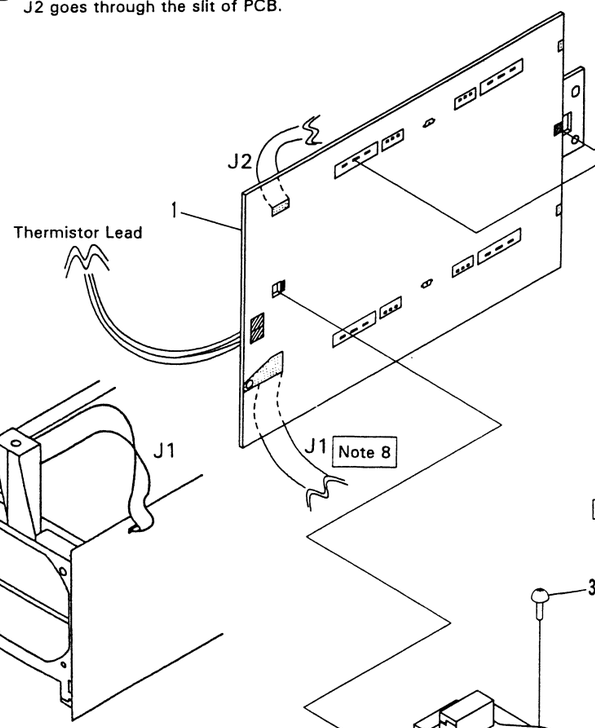


NOTE : Screws adjacent to ▼ mark on the product are used for disassembly.

2.3 POWER BLOCK



Note 1 Power Block J2 Dressing
J2 goes through the slit of PCB.



Note 8 Power Block J1 Dressing
J1 dressing catch on PCB of front side and avoid J1 to rear side.

■ CONTRAST OF VSX-605S/KUXJ, KCXJ, VSX-505S/KUXJ AND KCXJ

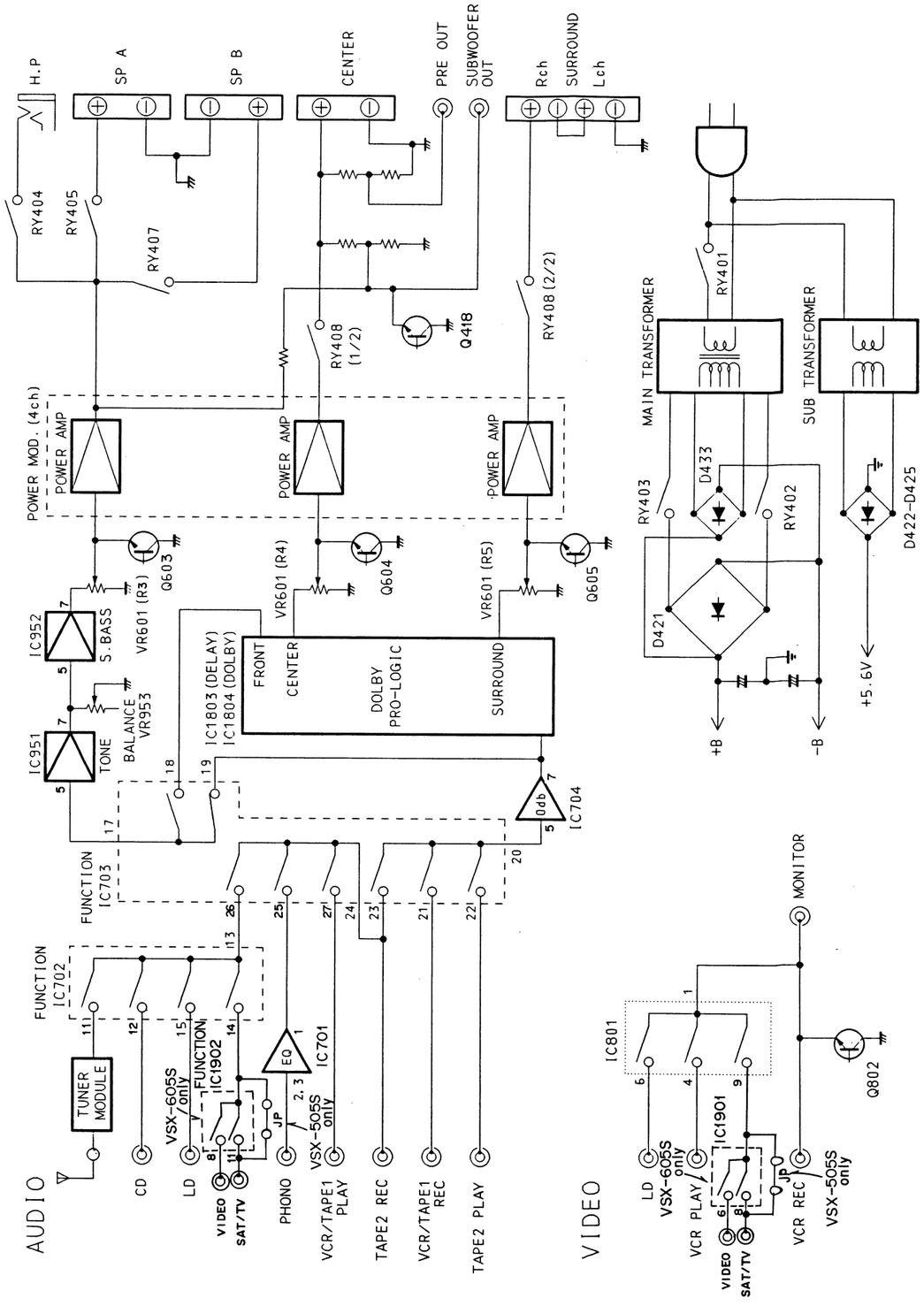
VSX-605S/KUXJ, KCXJ, VSX-505S/KUXJ and KCXJ have the same construction except for the following:

Mark	No.	Symbol & Description	Part No.				Remarks
			VSX-605S		VSX-505S		
			KUXJ	KCXJ	KUXJ	KCXJ	
⚠	15	Transistor (Q23)	2SA1932P	2SA1932P	2SA1837	2SA1837	
⚠	16	Transistor (Q24)	2SA1932P	2SA1932P	2SA1837	2SA1837	
⚠	17	Transistor (Q33)	2SA1932P	2SA1932P	2SA1837	2SA1837	
⚠	18	Transistor (Q34)	2SA1932P	2SA1932P	2SA1837	2SA1837	
⚠	19	Transistor (Q21)	2SC5174P	2SC5174P	2SC4793	2SC4793	
⚠	20	Transistor (Q22)	2SC5174P	2SC5174P	2SC4793	2SC4793	
⚠	21	Transistor (Q31)	2SC5174P	2SC5174P	2SC4793	2SC4793	
⚠	22	Transistor (Q32)	2SC5174P	2SC5174P	2SC4793	2SC4793	
	27	Driver holder	ANG7031	ANG7031	Not Used	Not Used	

■ PARTS LIST FOR VSX-605S/KUXJ

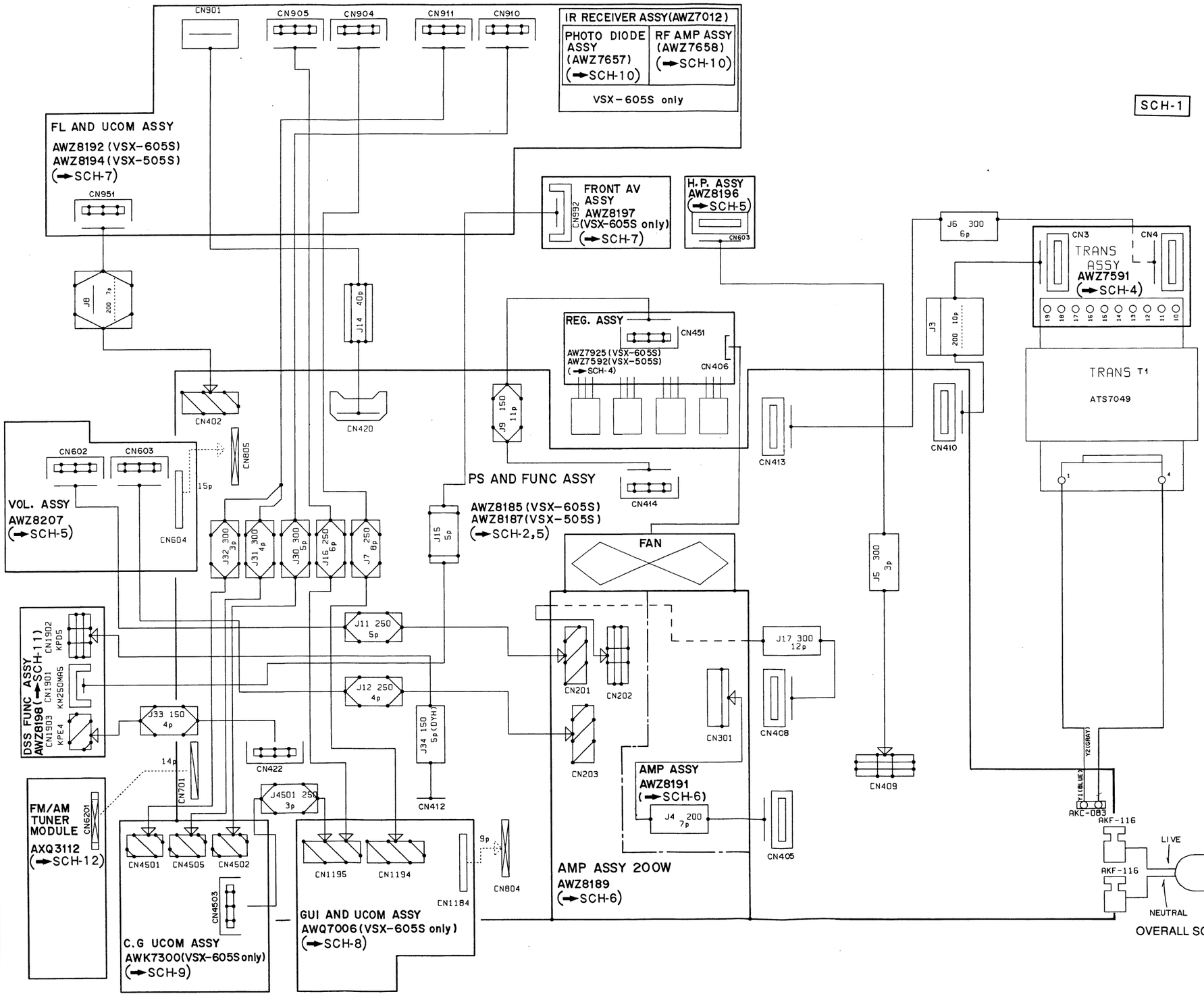
Mark	No.	Description	Part No.
	1	AMP ASSY	AWZ8191
	2	AMP ASSY 200W	AWZ8189
⚠	3	Transistor (Q3)	2SA1302
⚠	4	Transistor (Q4)	2SA1302
⚠	5	Transistor (Q7)	2SA1302
⚠	6	Transistor (Q8)	2SA1302
⚠	7	Transistor (Q11)	2SB1317
⚠	8	Transistor (Q12)	2SA1962
⚠	9	Transistor (Q1)	2SC3281
⚠	10	Transistor (Q2)	2SC3281
⚠	11	Transistor (Q5)	2SC3281
⚠	12	Transistor (Q6)	2SC3281
⚠	13	Transistor (Q9)	2SD1975
⚠	14	Transistor (Q10)	2SC5242
⚠	15	Transistor (Q23)	2SA1932P
⚠	16	Transistor (Q24)	2SA1932P
⚠	17	Transistor (Q33)	2SA1932P
⚠	18	Transistor (Q34)	2SA1932P
⚠	19	Transistor (Q21)	2SC5174P
⚠	20	Transistor (Q22)	2SC5174P
⚠	21	Transistor (Q31)	2SC5174P
⚠	22	Transistor (Q32)	2SC5174P
⚠	23	Transistor (Q209)	2SC1740S
⚠	24	Transistor (Q210)	2SC1740S
⚠	25	Transistor (Q309)	2SC1740S
⚠	26	Transistor (Q310)	2SC1740S
	27	Driver holder	ANG7031
	28	Fan motor	AXM7005
NSP	29	Radiator	ANH7012
	30	Exhaust mold	AMR7035
	31	Radiator mold	AMR7036
	32	·····	
	33	Screw	ABA-283
	34	Screw	ABA1037
	35	Screw	BBZ30P080FZK
	36	Screw	BPZ30P350FZK

3. BLOCK DIAGRAM



4. SCHEMATIC AND PCB CONNECTION DIAGRAMS

4.1 OVERALL SCHEMATIC DIAGRAM



OVERALL SCHEMATIC DIAGRAM

SCH-1

NOTE FOR SCHEMATIC DIAGRAMS (Type 1A)

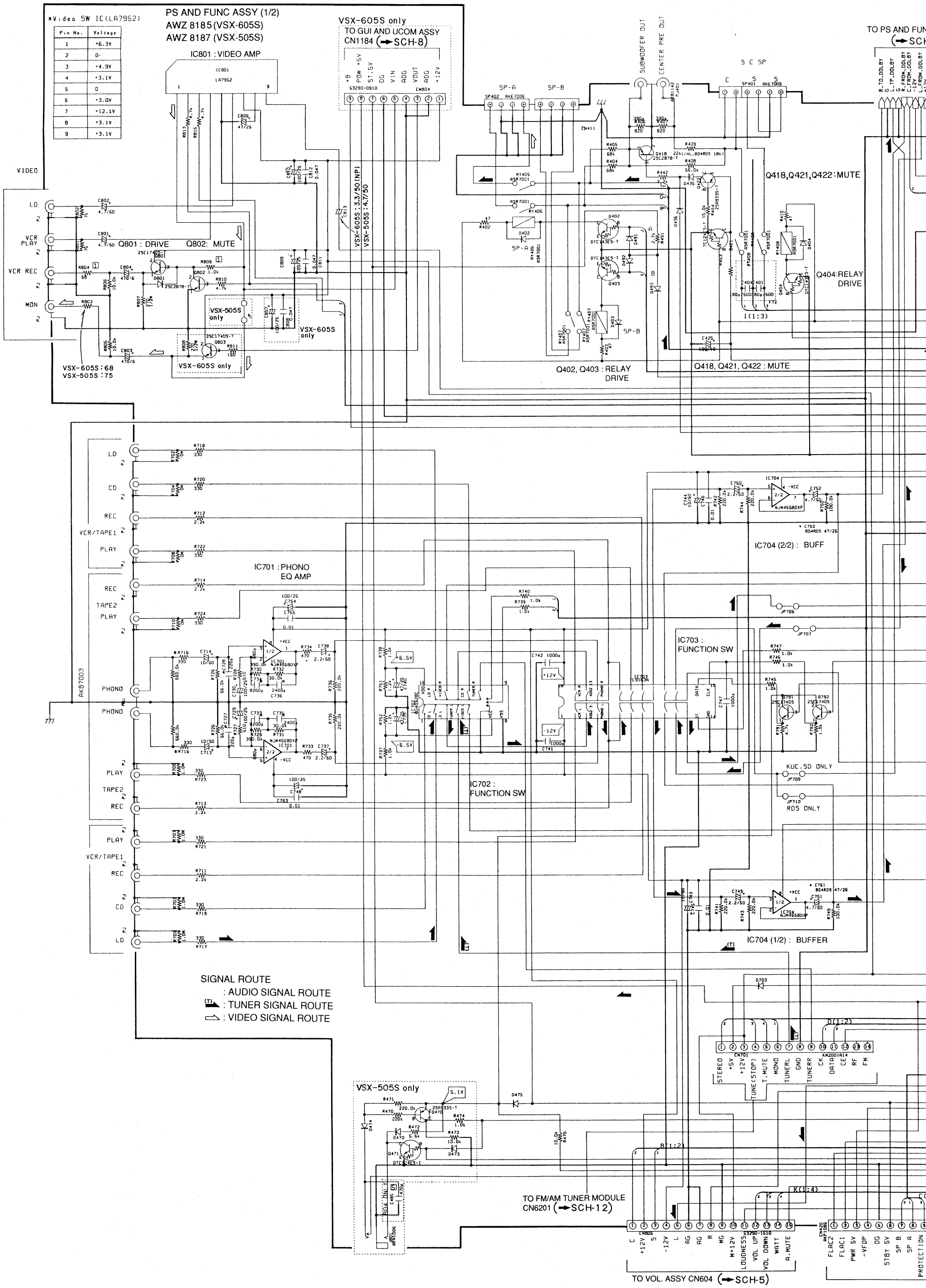
1. **When ordering service parts, be sure to refer to "PARTS LIST of EXPLODED VIEWS" or "PCB PARTS LIST".**
2. **Since these are basic circuits, some parts of them or the values of some components may be changed for improvement.**
3. **RESISTORS:**
   Unit: k:kΩ, M:MΩ, or Ω unless otherwise noted.
   Rated power: 1/4W, 1/6W, 1/8W, 1/10W unless otherwise noted.
   Tolerance: (F): ±1%, (G): ±2%, (K): ±10%, (M): ±20% or ±5% unless otherwise noted.
4. **CAPACITORS:**
   Unit: p:pF or μF unless otherwise noted.
   Ratings: capacitor (μF)/ voltage (V) unless otherwise noted.
   Rated voltage: 50V except for electrolytic capacitors.
5. **COILS:**
   Unit: m:mH or μH unless otherwise noted.
6. **VOLTAGE AND CURRENT:**
   V : Signal voltage at rated output.
   or ⌐ V :
   DC voltage (V) at no input signal unless otherwise noted.
   Value in ( ) is DC voltage at rated power.
   ⇦ mA or ⌐ mA :
   DC current at no input signal unless otherwise noted.
7. **OTHERS:**
   - ⇦ or ⓿ : Adjusting point.
   - · · : Measurement point.
   - The ⚠ mark found on some component parts indicates the importance of the safety factor of the parts. Therefore, when replacing, be sure to use parts of identical designation.
8. **SCH—□ ON THE SCHEMATIC DIAGRAM:**
   - SCH—□ indicates the drawing number of the schematic diagram. (SCH stands for schematic diagram.)
9. **SWITCHES** (Underline indicates switch position):

FL AND UCOM ASSY
S901 : POWER STANDBY/ON
S903 : SPEAKERS A
S904 : SPEAKERS B
S905 : RETURN
S906 : VIDEO INPUT (VSX-605S only)
S912 : VCR/TAPE 1
S913 : SAT/TV
S914 : PHONO
S915 : TUNER
S916 : LD/DVD
S917 : CD
S918 : DOLBY PRO LOGIC
S919 : SUPER BASS
S921 : TAPE 2 MONITOR
S922 : SFC MODE
S923 : DOLBY 3CH LOGIC
S924 : MEMORY
S925 : ENTER
S926 : SELECT
S927 : GUI MODE (VSX-605S only)
S928 : FM/AM
S929 : MPX MODE
S930 : RESET (VSX-605S only)
S941 : MULTI JOG

OVERALL SCHEMATIC DIAGRAM

SCH-1

4.2 PS AND FUNC ASSY (1/2)



SCH-2 PS AND FUNC ASSY (1/2)

1 2 3 4 5

SCH-2

TO PS AND FUNC ASSY (2/2) (➡SCH-3)

TO FL AND UCOM ASSY CN 951 (➡SCH-7)

TO DSS FUNC ASSY CN1902(➡SCH-11)

TO H.P ASSY CN603 (➡SCH-5)

TO AMP ASSY CN301 (➡SCH-6)

TO AMP ASSY 200W CN202 (➡SCH-6)

INPUT SW(SAT)

A(1:3)

Q481–Q486 : LIMITER

Q417, Q423 : RELAY DRIVER

Q408, Q409 : DC PROTECTION

Q419, Q420 : THERMO DETECTOR

Q707, Q708: MUTE

Q416: STANDBY POWER SUPPLY

C413,C414:ACH7010

FROM TRANS

TO TRANS ASSY CN3 (➡SCH-4)

TO TRANS ASSY CN4 (➡SCH-4)

TO DSS FUNC ASSY CN1903(➡SCH-11)

TO REG ASSY CN451 (➡SCH-4)

TO POWER TRANSFORMER

VSX-605S only

VSX-505S only

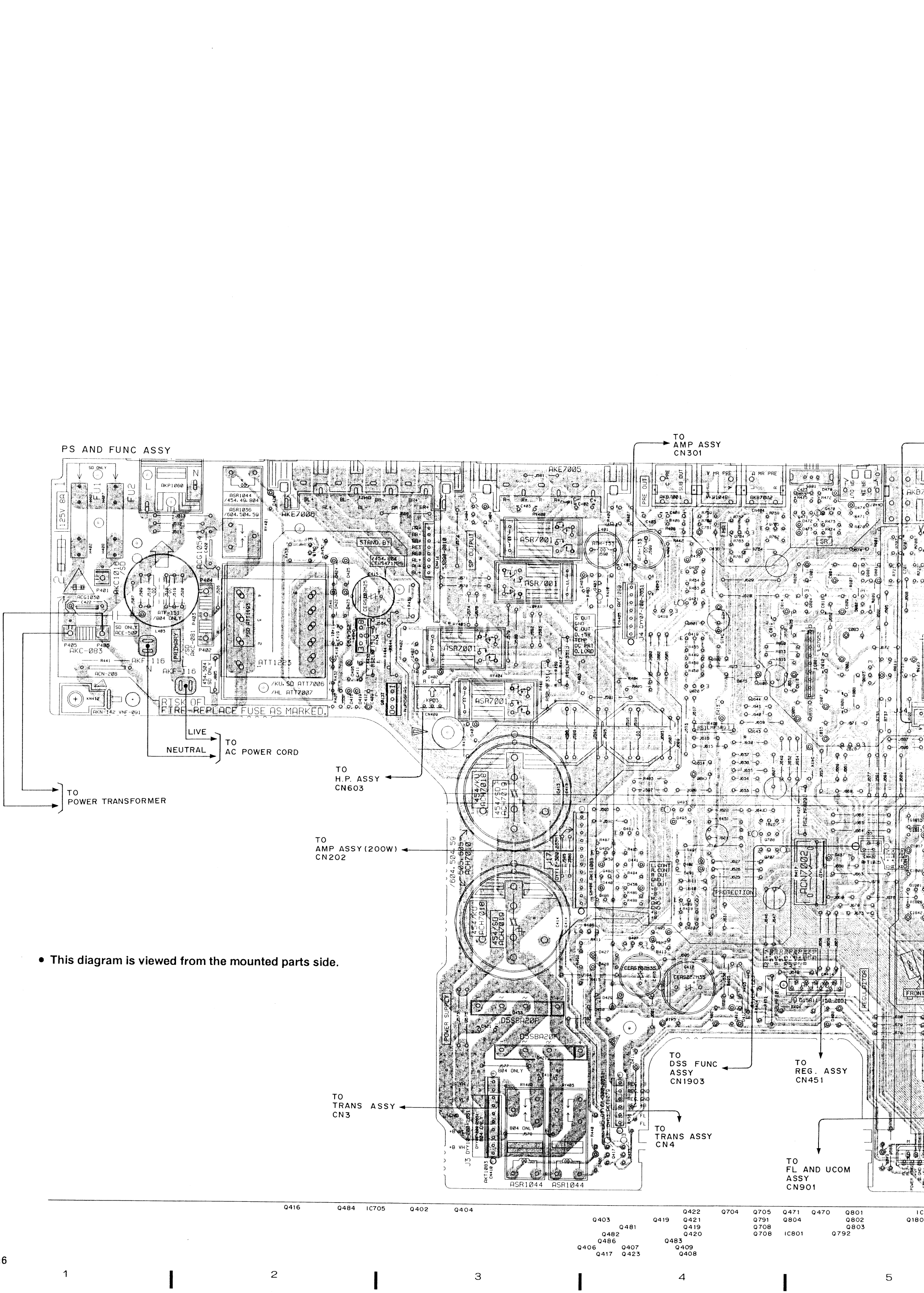
TO FL AND UCOM ASSY CN901 (➡SCH-7)

● NOTE FOR FUSE REPLACEMENT

CAUTION – FOR CONTINUED PROTECTION AGAINST RISK OF FIRE, REPLACE ONLY WITH SAME TYPE AND RATINGS ONLY.

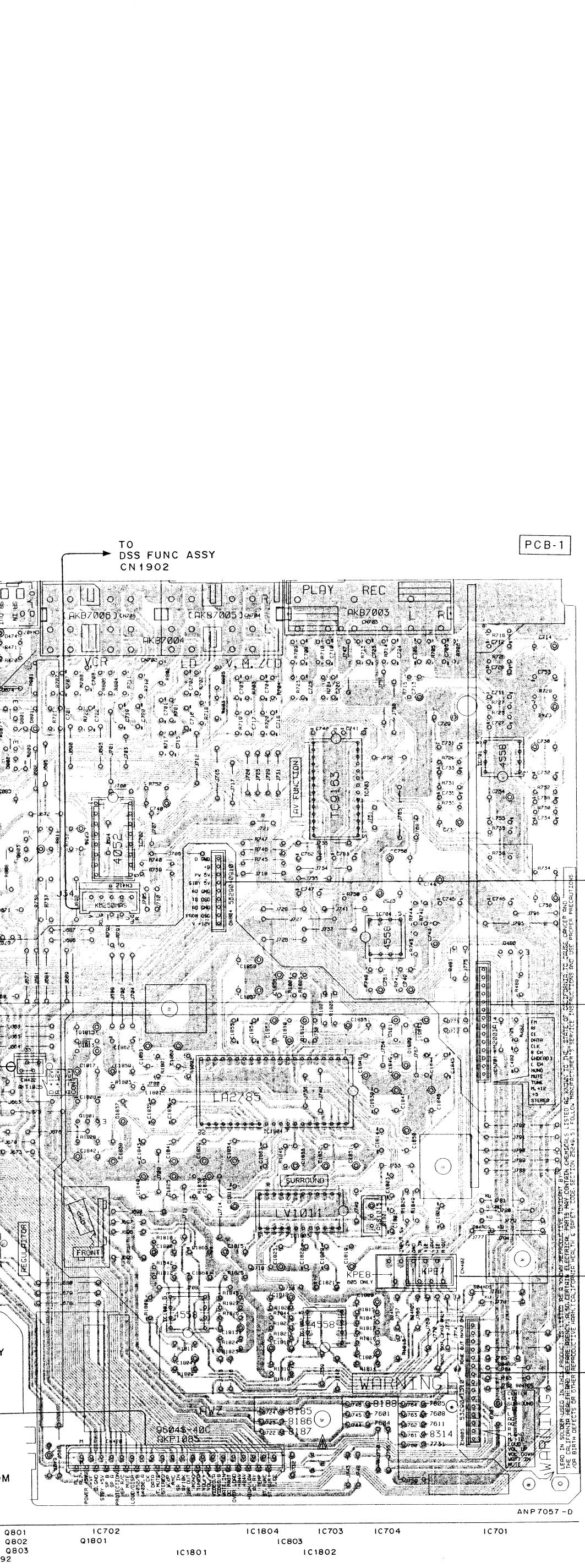
PS AND FUNC ASSY (1/2)

SCH-2



- This diagram is viewed from the mounted parts side.

PCB-1



NOTE FOR PCB DIAGRAMS:

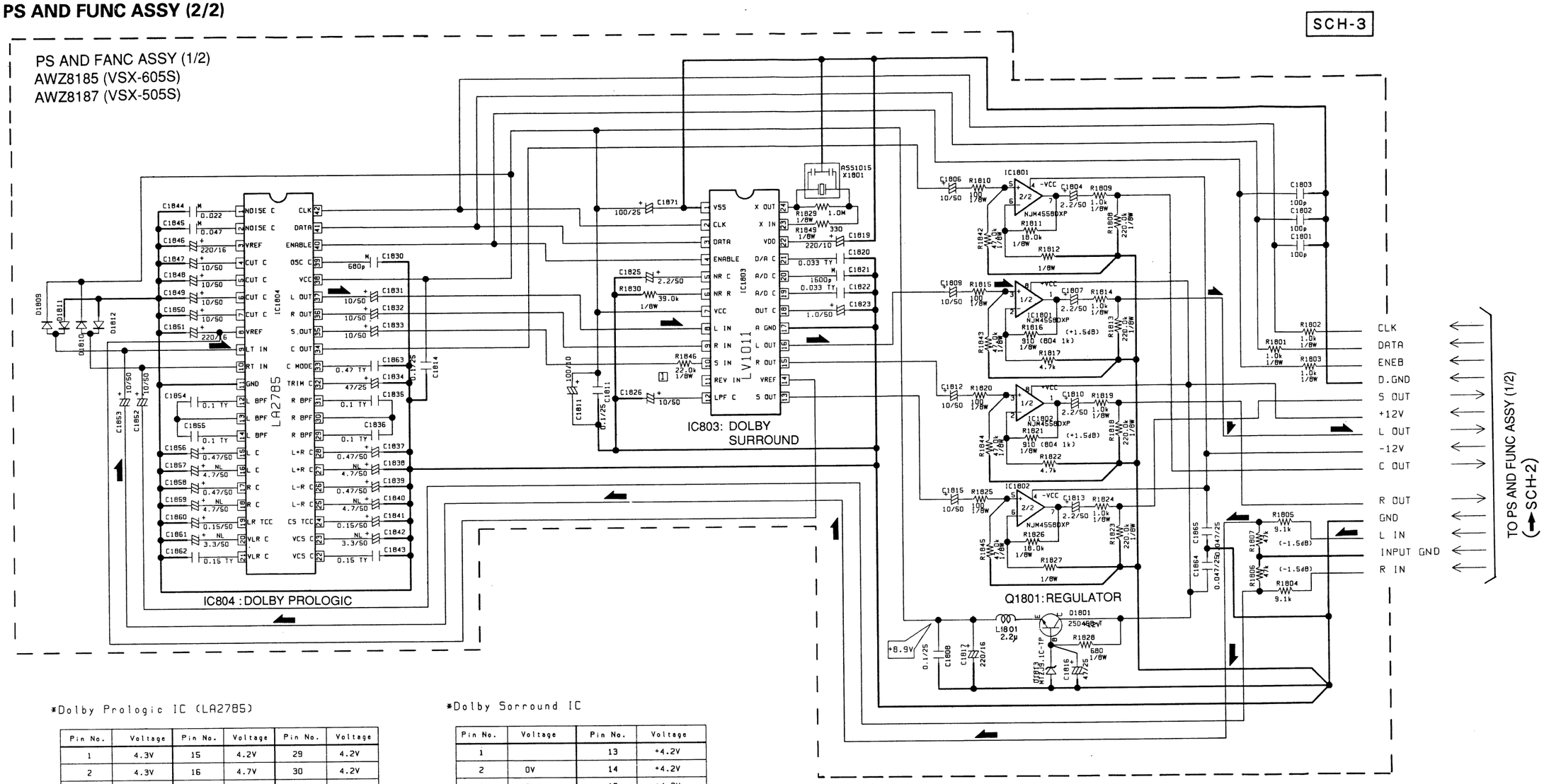
1. Part numbers in PCB diagrams match those in the schematic diagrams.
2. A comparison between the main parts of PCB and schematic diagrams is shown below.

Symbol in PCB Diagrams	Symbol in Schematic Diagrams	Part Name
Q504 E Q504	Q504 Q504	Transistor
D203 D203	D203	Diode
C513 C513	C513	Capacitor (Polarized)

3. The transistor terminal marked with E or ⊏ shows the emitter.
4. The diode terminal marked with ⓞ or ⊐ shows cathode side.
5. The capacitor terminal marked with ⓞ or ⊏ shows negative terminal.

- The parts mounted on this PCB include all necessary parts for several destinations. For further information for respective destinations, be sure to check with the schematic diagram.

4.3 PS AND FUNC ASSY (2/2)



*Dolby Prologic IC (LA2785)

Pin No.	Voltage	Pin No.	Voltage	Pin No.	Voltage
1	4.3V	15	4.2V	29	4.2V
2	4.3V	16	4.7V	30	4.2V
3	4.2V	17	4.2V	31	4.2V
4	4.2V	18	4.9V	32	4.2V
5	4.2V	19	4.2V	33	4.2V
6	4.2V	20	4.2V	34	4.2V
7	4.2V	21	4.2V	35	4.2V
8	4.2V	22	4.2V	36	4.2V
9	4.2V	23	4.2V	37	4.2V
10	4.2V	24	4.2V	38	8.4V
11	0V	25	4.9V	39	
12	4.2V	26	4.2V	40	4.7V
13	4.2V	27	4.7V	41	0V
14	4.2V	28	4.2V	42	0V

*Dolby Sorround IC

Pin No.	Voltage	Pin No.	Voltage
1		13	+4.2V
2	0V	14	+4.2V
3	0V	15	+4.2V
4	+4.7V	16	+4.2V
5	+2.4V	17	
6	+0.7V	18	+4.2V
7	+8.4V	19	+4.2V
8	+4.2V	20	+4.2V
9	+4.2V	21	+4.2V
10	+4.2V	22	+4.8V
11	+4.2V	23	
12	+4.2V	24	

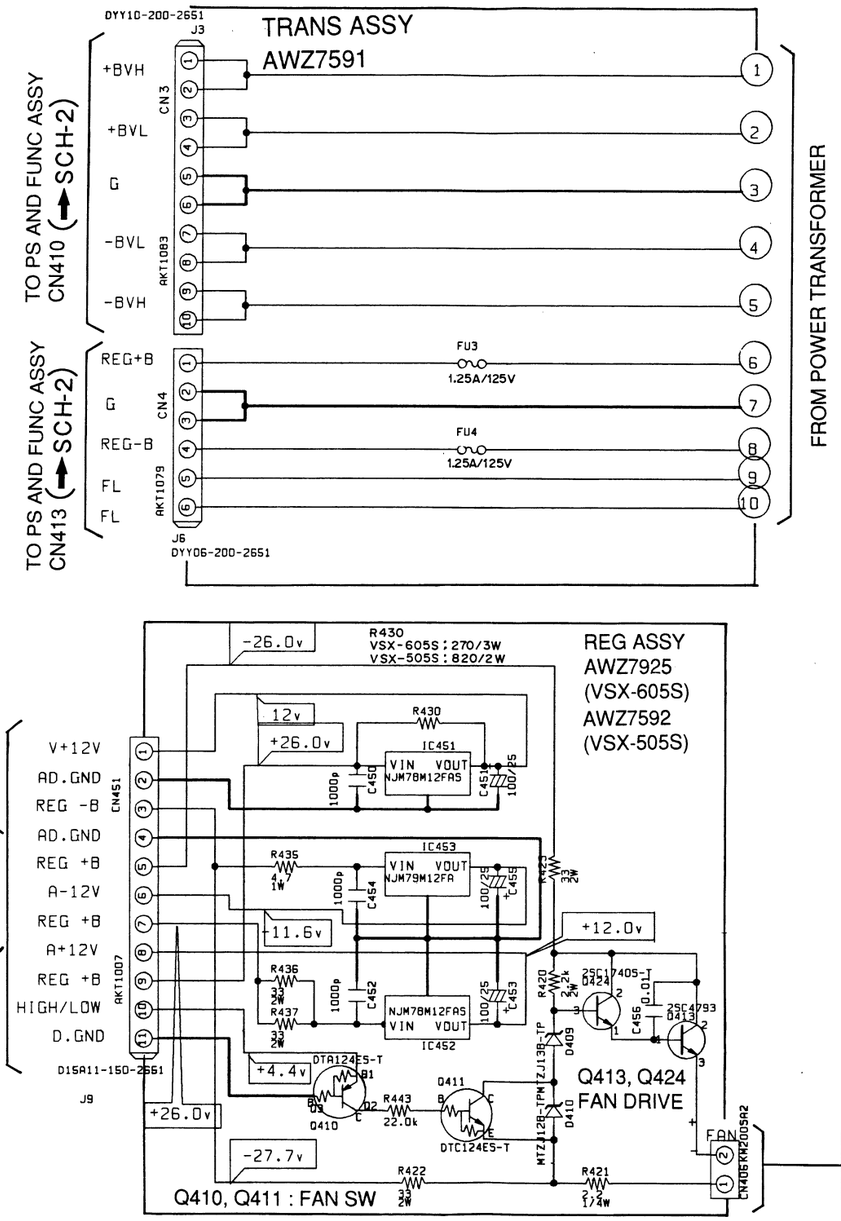
	R1812	R1827
VSX-605S	4.7k	4.7k
VSX-505S	3.9k	3.9k

4.4 TRANS ASSY AND REG ASSY

●NOTE FOR FUSE REPLACEMENT

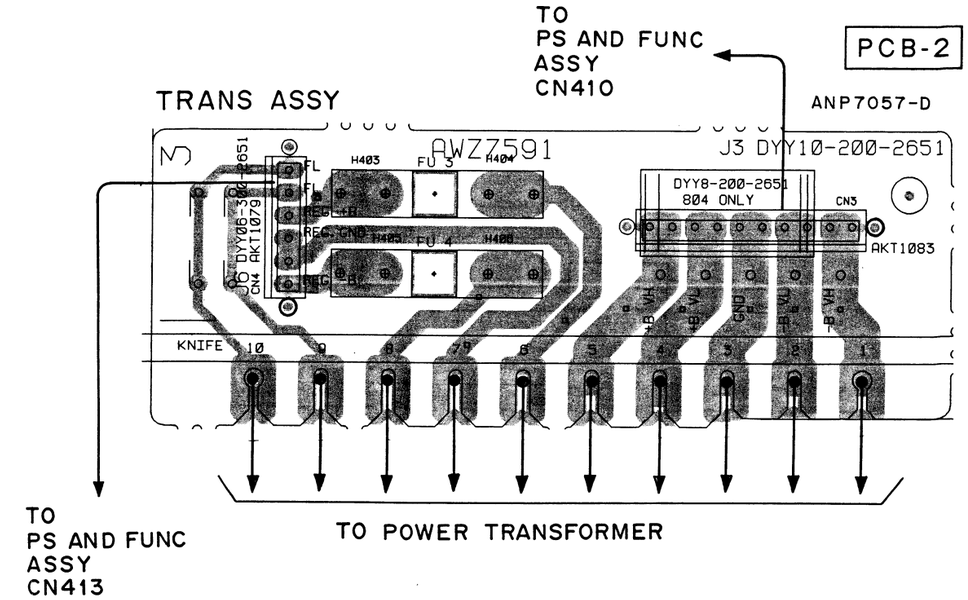
CAUTION – FOR CONTINUED PROTECTION AGAINST RISK OF FIRE, REPLACE ONLY WITH SAME TYPE AND RATINGS ONLY.

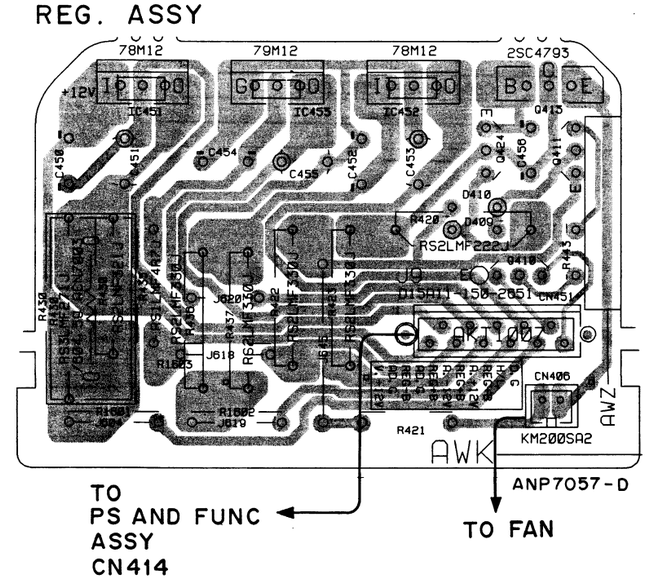
SCH-4



•This diagram is viewed from the mounted parts side.

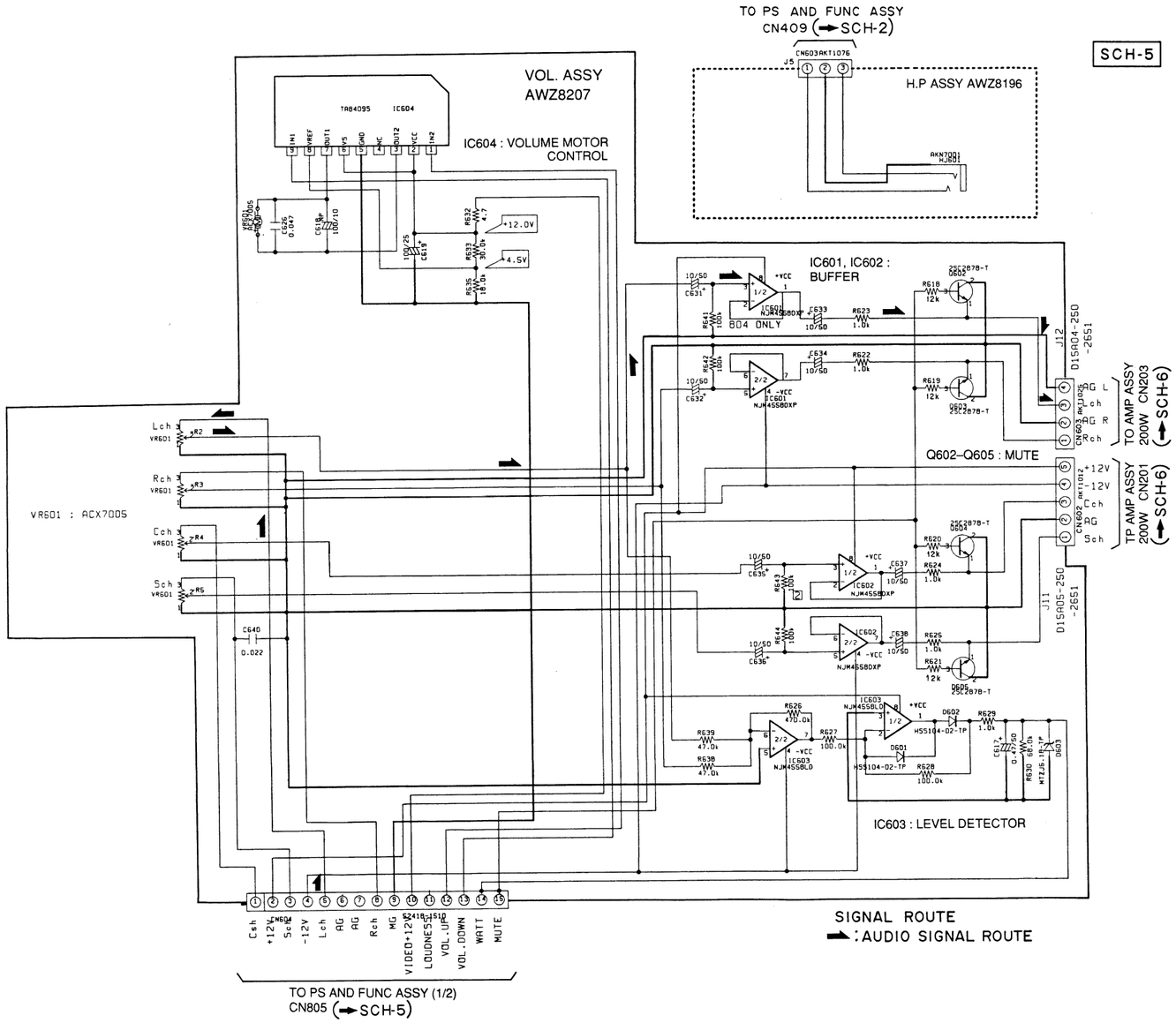
PCB-2



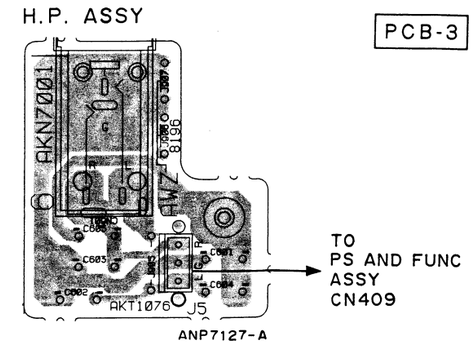


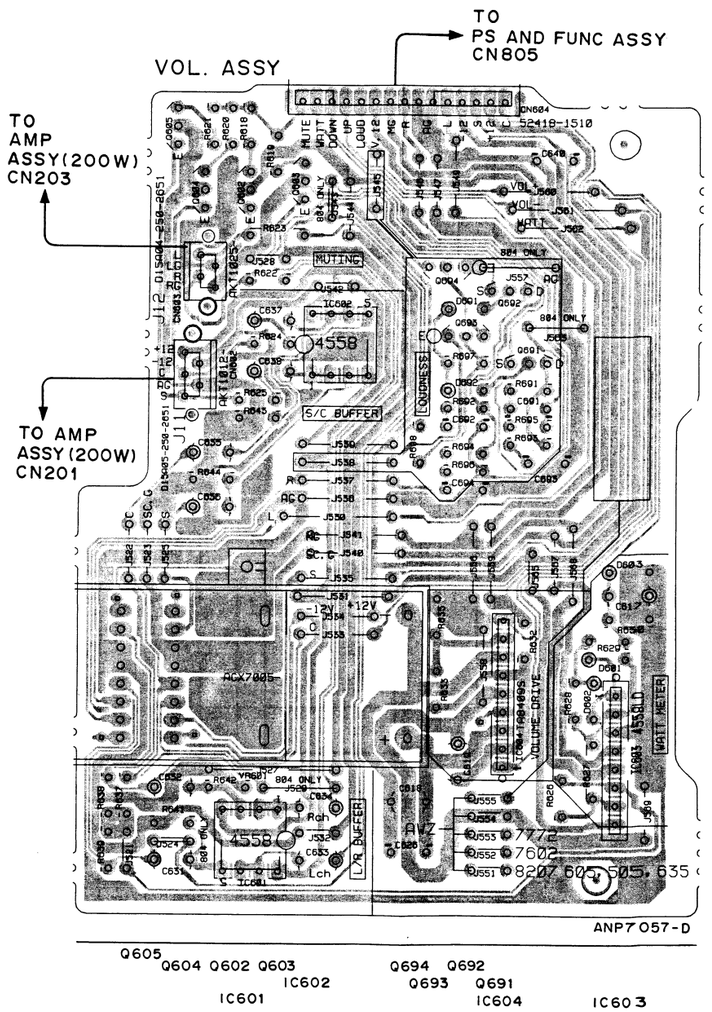
• The parts mounted on this PCB include all necessary parts for several destinations. For further information for respective destinations, be sure to check with the schematic diagram.

4.5 VOL. ASSY AND H.P. ASSY



SCH-5 VOL. ASSY, H.P. ASSY

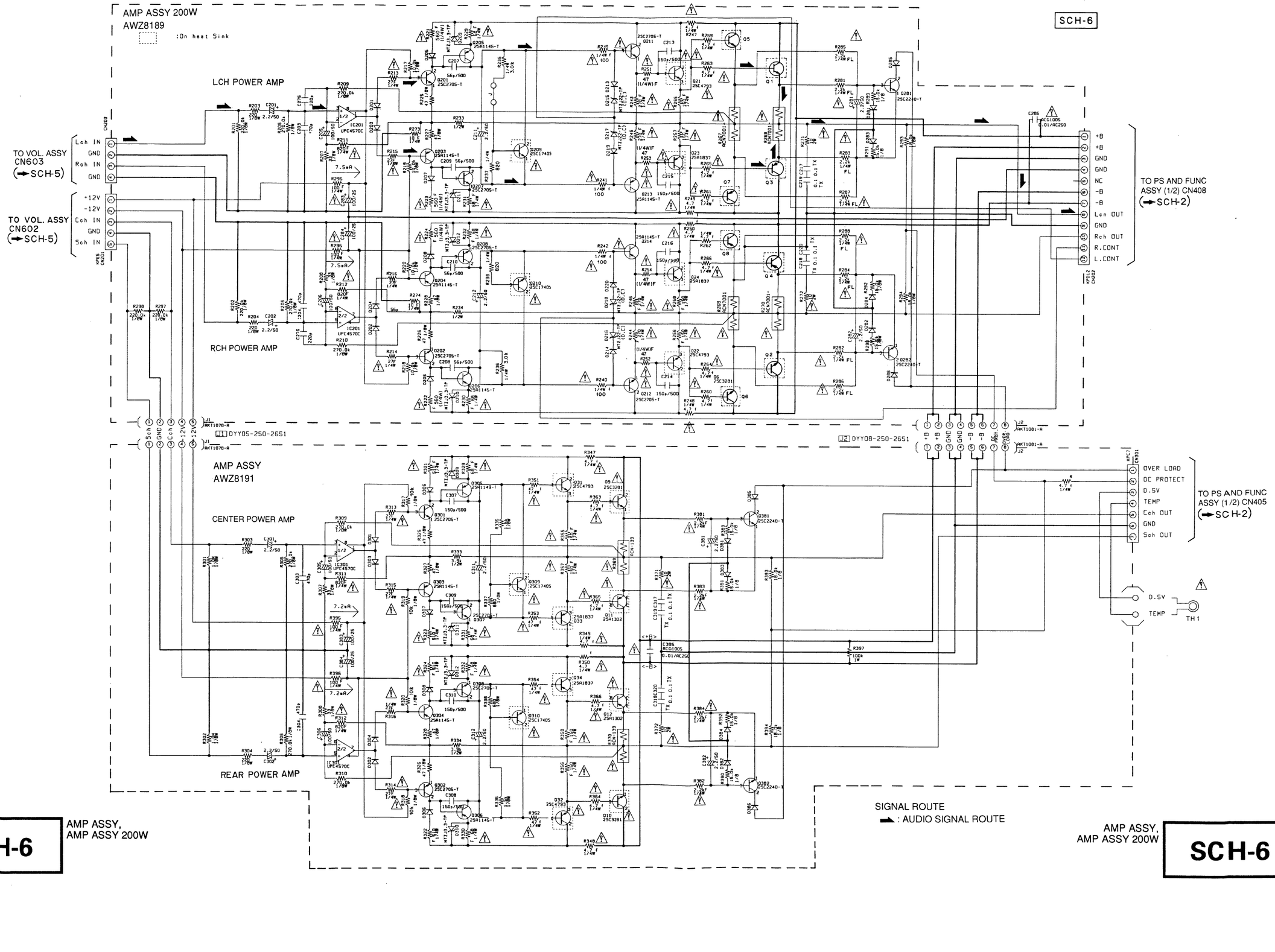




VOL. ASSY, H.P. ASSY **SCH-5**

•This diagram is viewed from the mounted parts side.

4.6 AMP ASSY AND AMP ASSY 200W

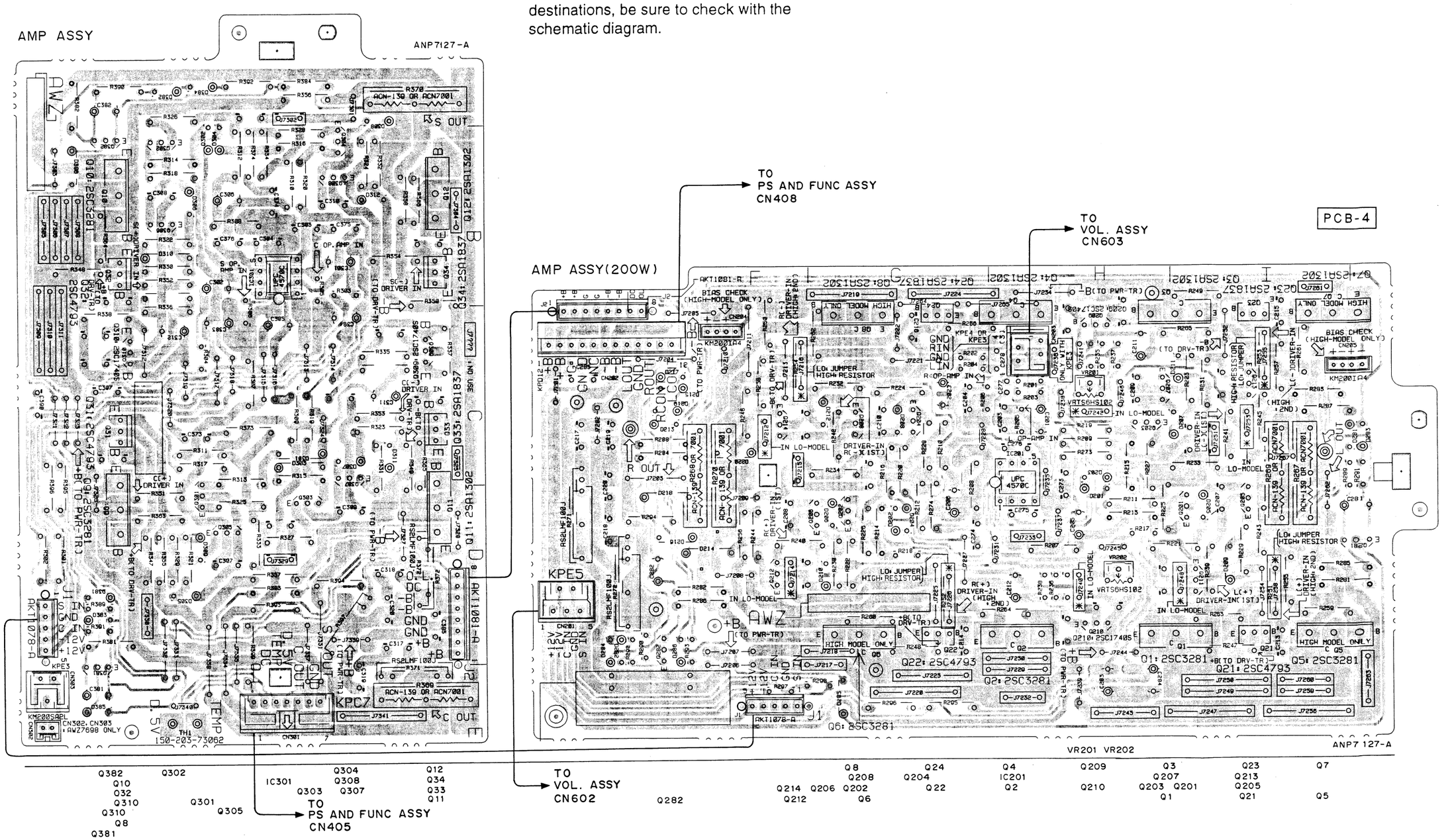


SCH-6 AMP ASSY, AMP ASSY 200W

AMP ASSY, AMP ASSY 200W **SCH-6**

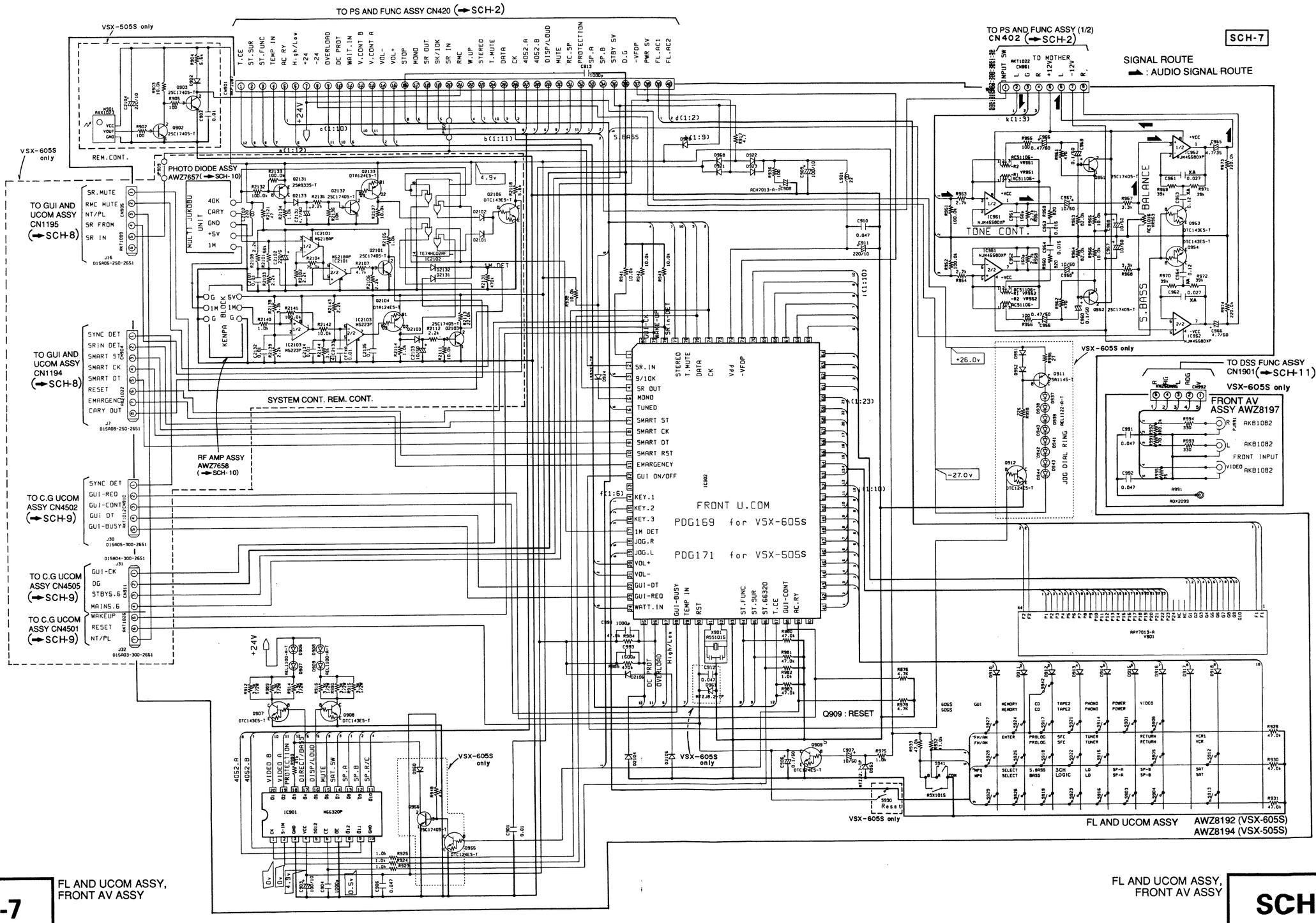
•This diagram is viewed from the mounted parts side.

• The parts mounted on this PCB include all necessary parts for several destinations. For further information for respective destinations, be sure to check with the schematic diagram.



VSX-605S, VSX-505S

4.7 FL AND UCOM ASSY AND FRONT AV ASSY



•This diagram is viewed from the mounted parts side.

- The parts mounted on this PCB include all necessary parts for several destinations. For further information for respective destinations, be sure to check with the schematic diagram.

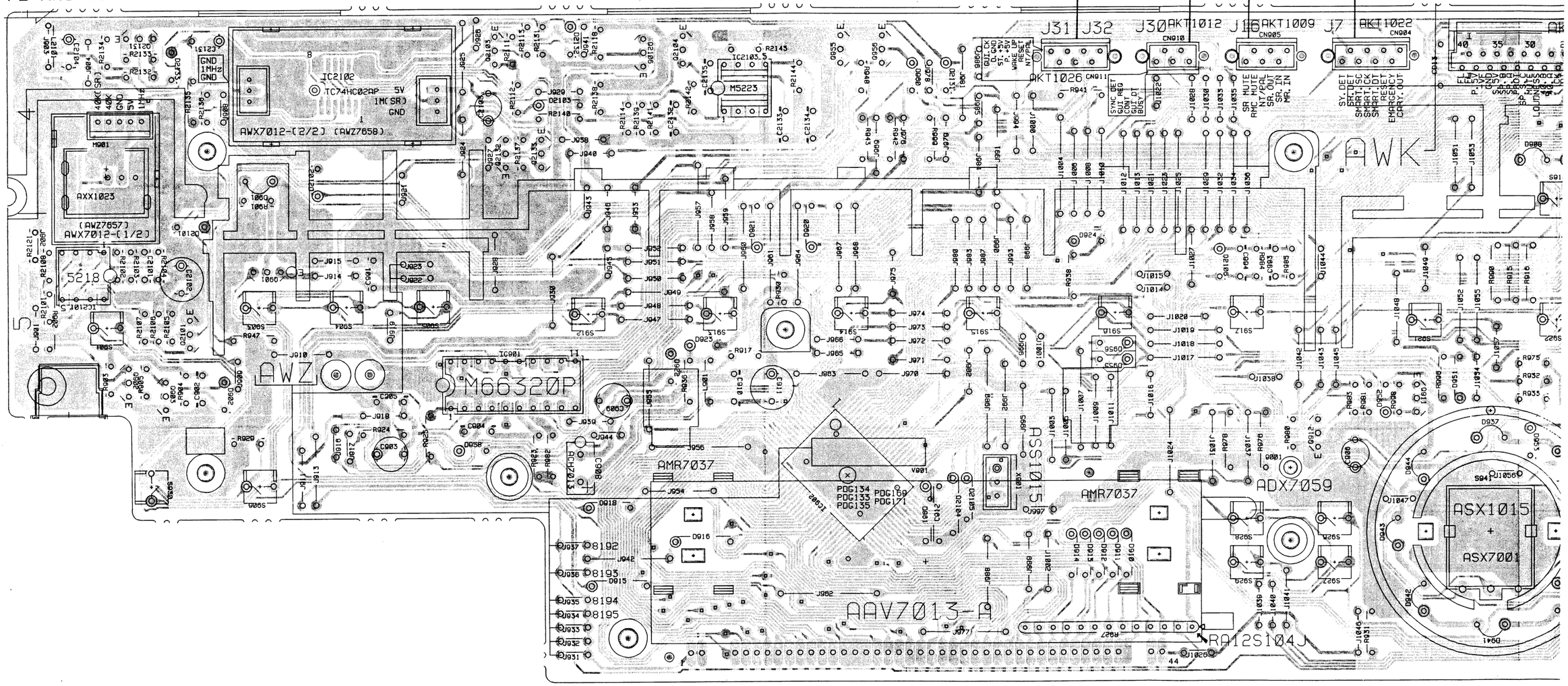
TO
CG UCOM ASSY
CN4502

TO
GUI AND UCOM ASSY
CN1195

TO
CG UCOM ASSY
CN4501,CN4505

TO
GUI AND UCOM ASSY
CN1194

FL AND UCOM ASSY



Q2131
IC2101
Q901
Q902 Q903
Q2103
Q2132 Q2133
IC901
Q2105 Q2104 IC2103
Q955 Q956
Q912
Q911

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several destinations.
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TO
CG UCOM ASSY
CN4502

TO
CG UCOM ASSY
CN4501,CN4505

TO
GUI AND UCOM ASSY
CN1195

TO
GUI AND UCOM ASSY
CN1194

TO
PS AND FUNC ASSY
CN420

PCB-5

FRONT AV ASSY
ANP7127-A
AWZ8197
AKB7011 +V
AKB7011 +L
AKB7011 +R
KM250MA5B

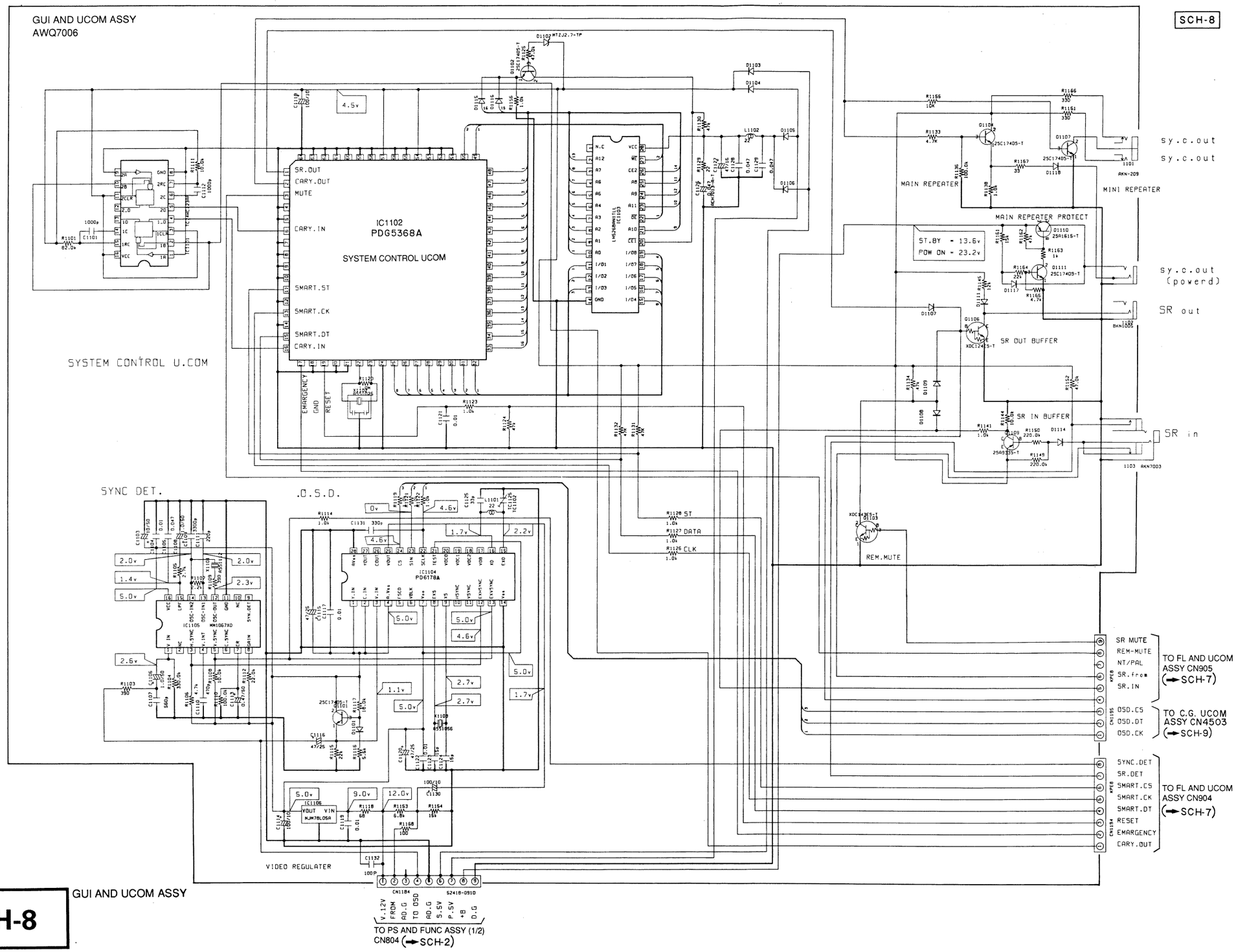
TO
DSS FUNC
ASSY
CN1901

TO
PS AND FUNC
ASSY
CN402

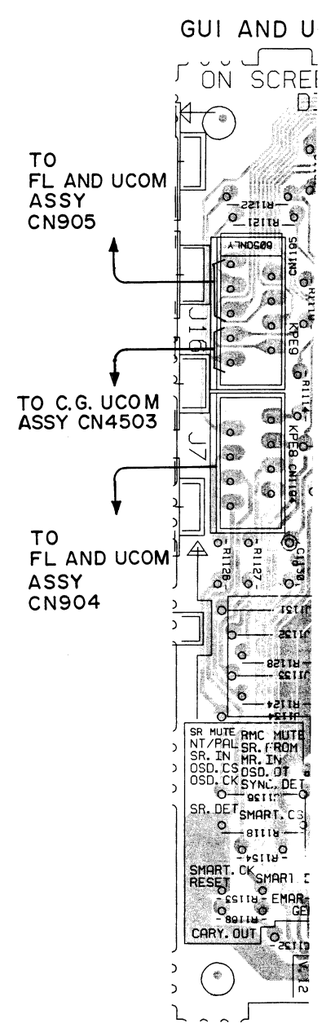
ANP7127-A

Q2105 Q2104 IC2103 Q955 Q956 Q912 Q911 Q909 Q951 Q908 Q907 Q952 IC951 VR951 VR952 VR953 IC952 Q954

4.8 GUI AND UCOM ASSY



SCH-8 GUI AND UCOM ASSY



•This diagram i

• The parts r
necessary p
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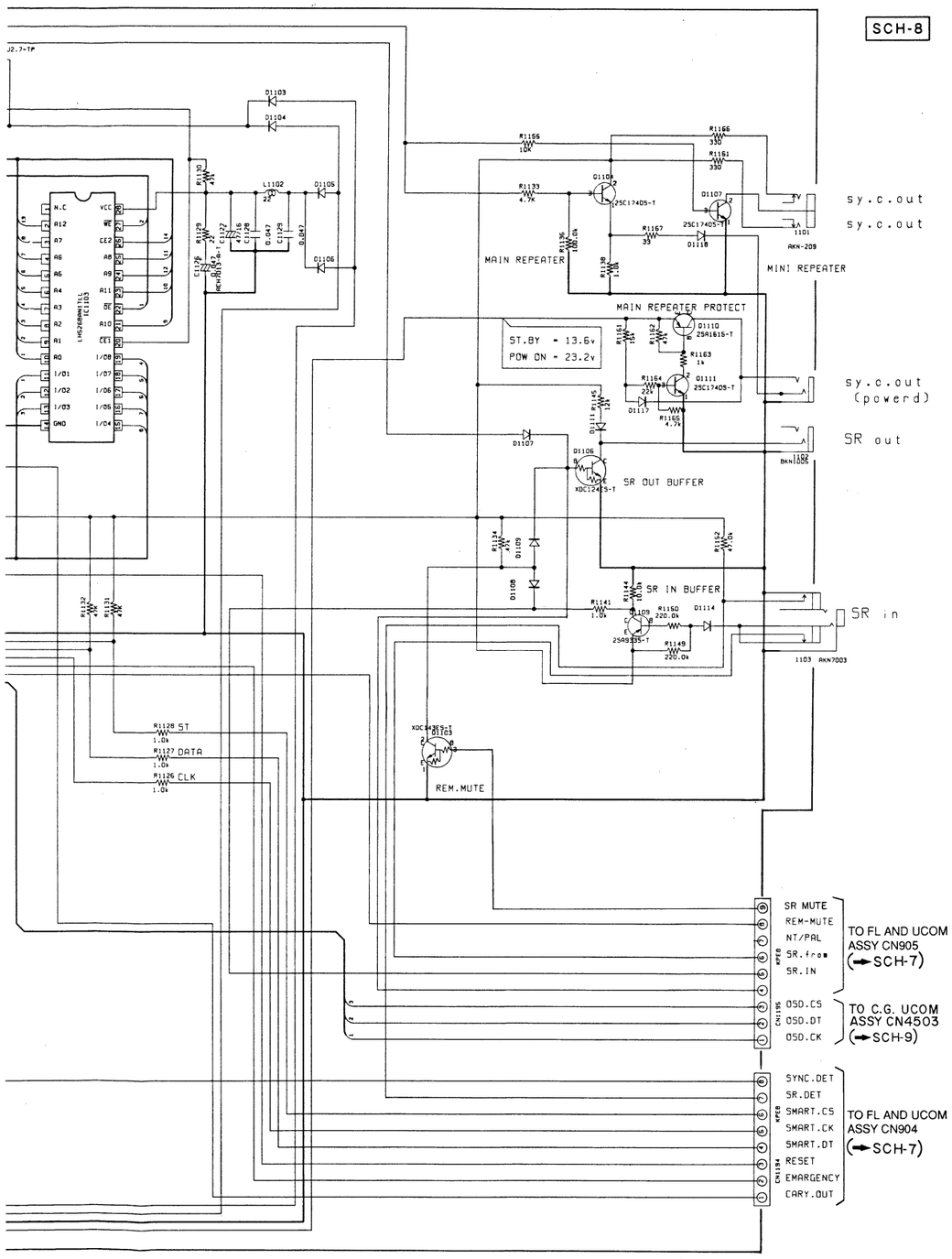
destinations
schematic d

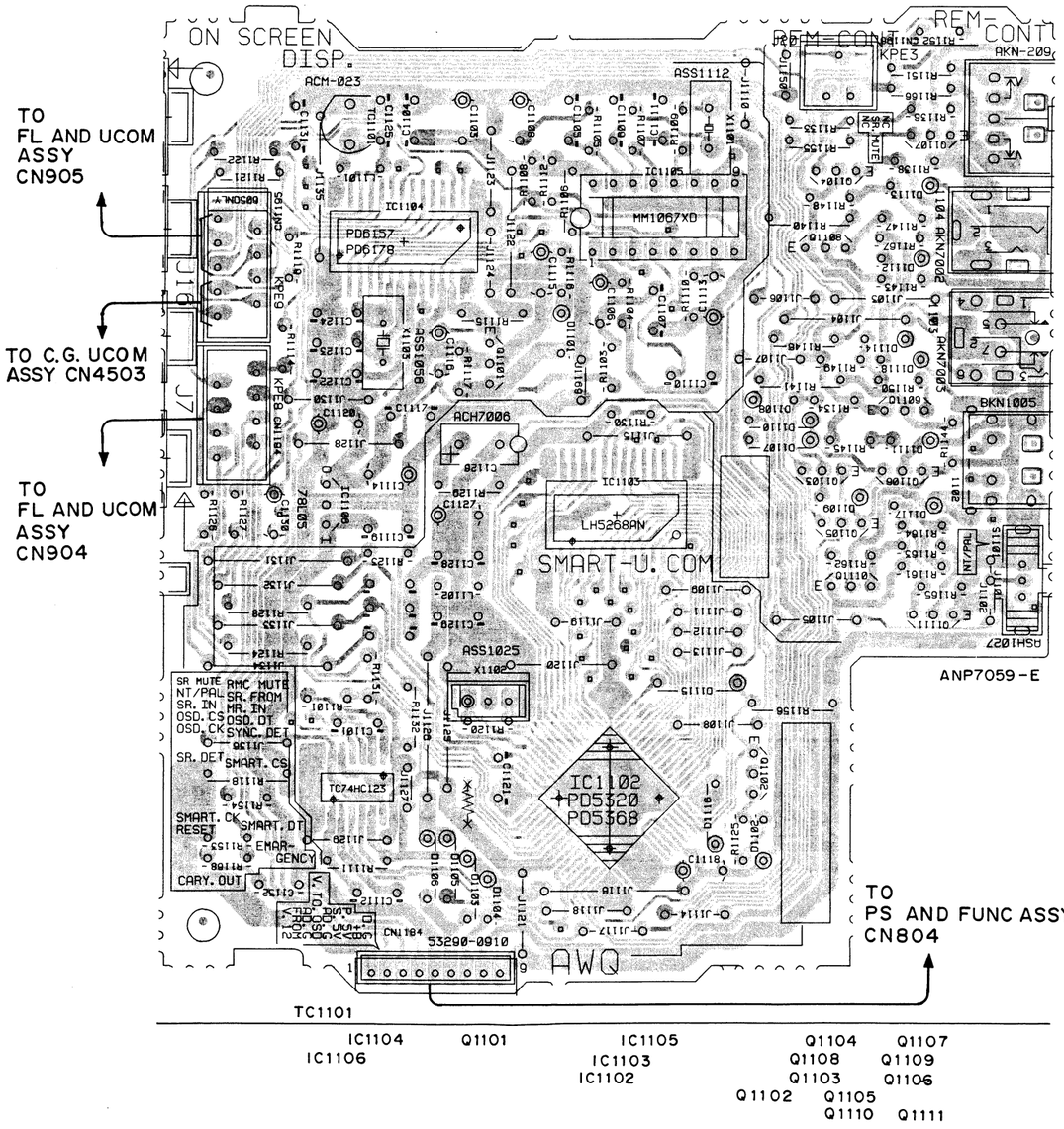
SCH-8



•This diagram is viewed from the mounted parts side.

PCB-6

GUI AND UCOM ASSY



ANP7059-E

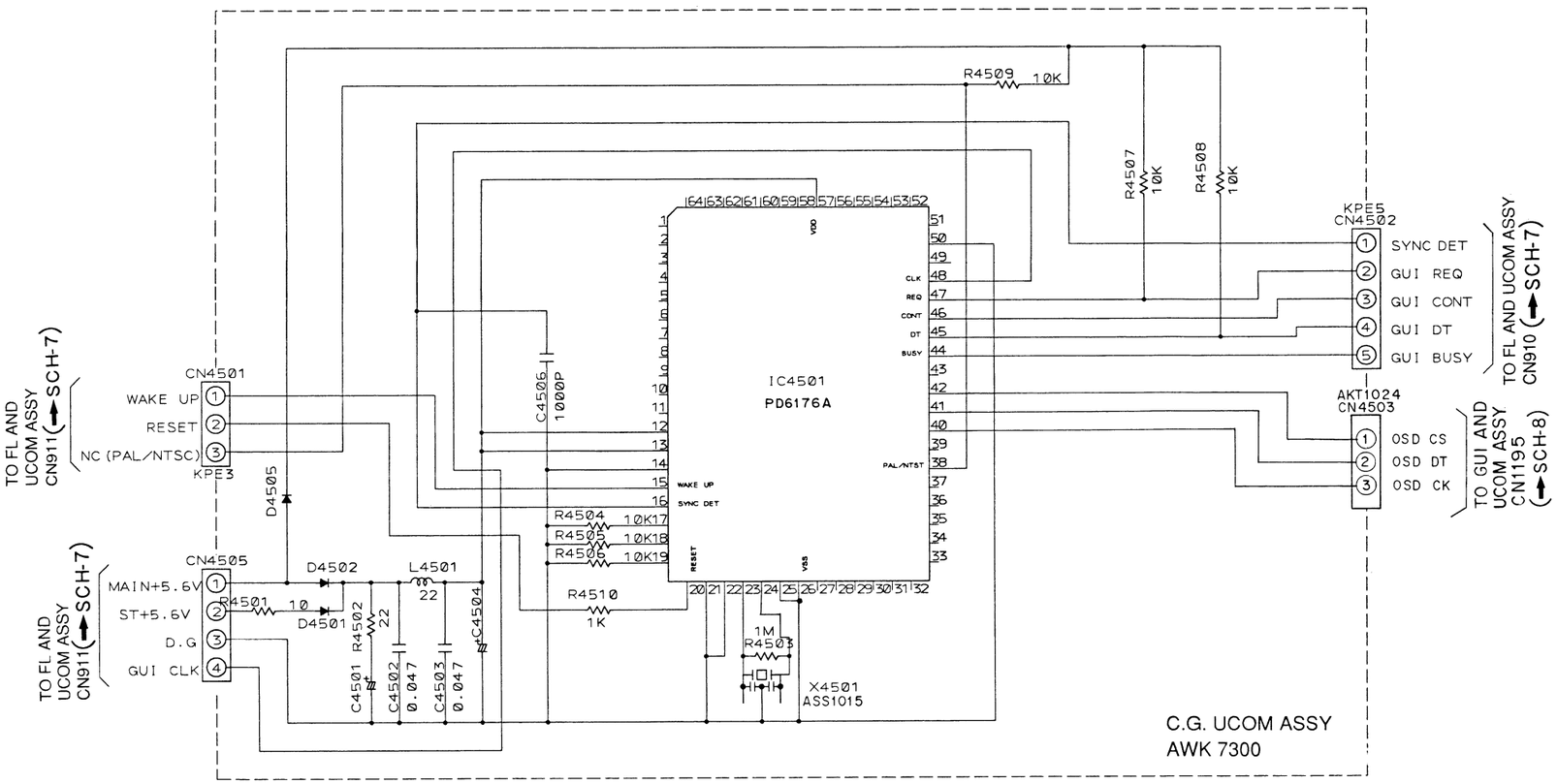
• The parts mounted on this PCB include all necessary parts for several destinations. For further information for respective destinations, be sure to check with the schematic diagram.

GUI AND UCOM ASSY

SCH-8

4.9 C.G. UCOM ASSY

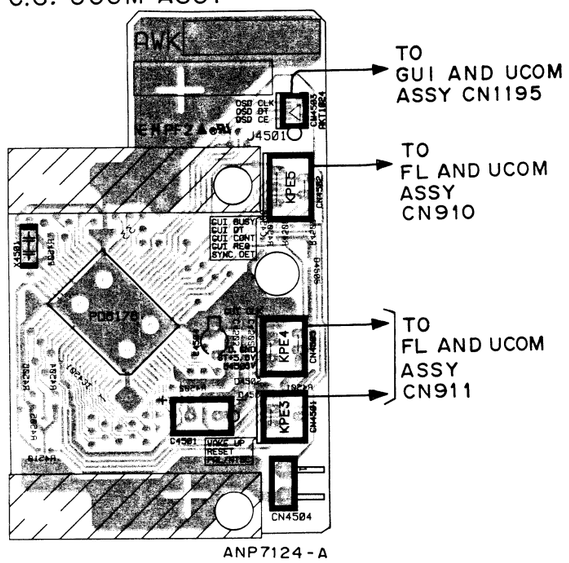
SCH-9



C4501	605	ACH7013-

PCB-7

C.G. UCOM ASSY

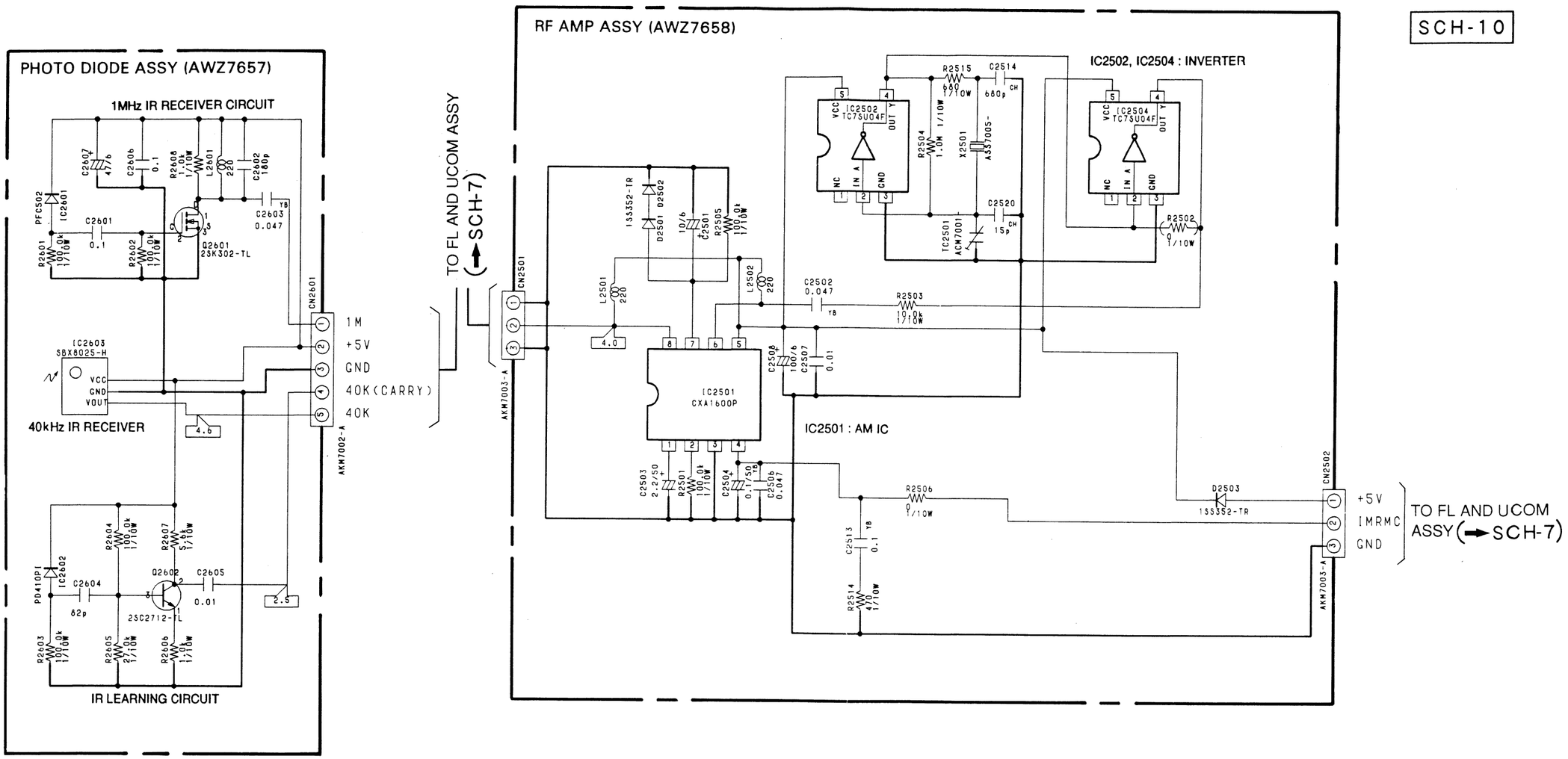


ANP7124-A

•This diagram is viewed from the mounted parts side.

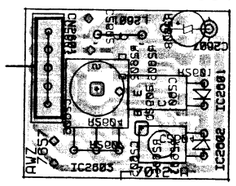
- The parts mounted on this PCB include all necessary parts for several destinations. For further information for respective destinations, be sure to check with the schematic diagram.

4.10 PHOTO DIODE ASSY AND RF AMP ASSY



IC2601 IC2602 Q2602 IC2603

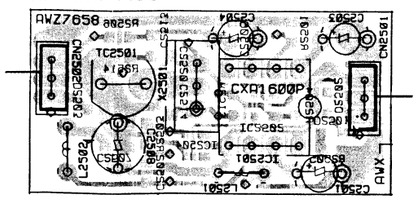
PHOTO DIODE ASSY



TO FL AND UCOM ASSY

IC2502 IC2501 IC2504

RF AMP ASSY



TO FL AND UCOM ASSY

TO FL AND UCOM ASSY

PCB-8

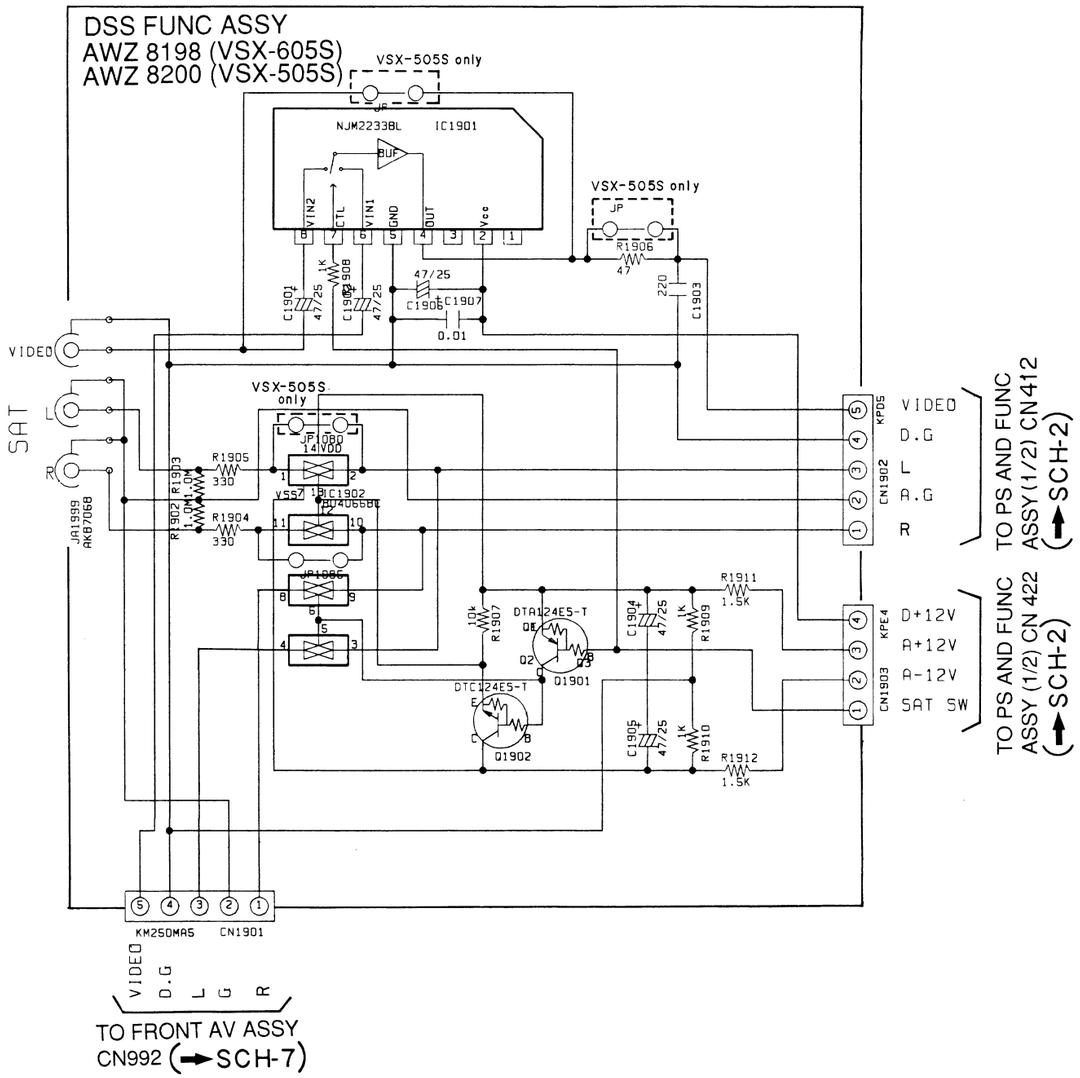
SCH-10 PHOTO DIODE ASSY, RF AMP ASSY

• This diagram is viewed from the mounted parts side.

PHOTO DIODE ASSY, RF AMP ASSY **SCH-10**

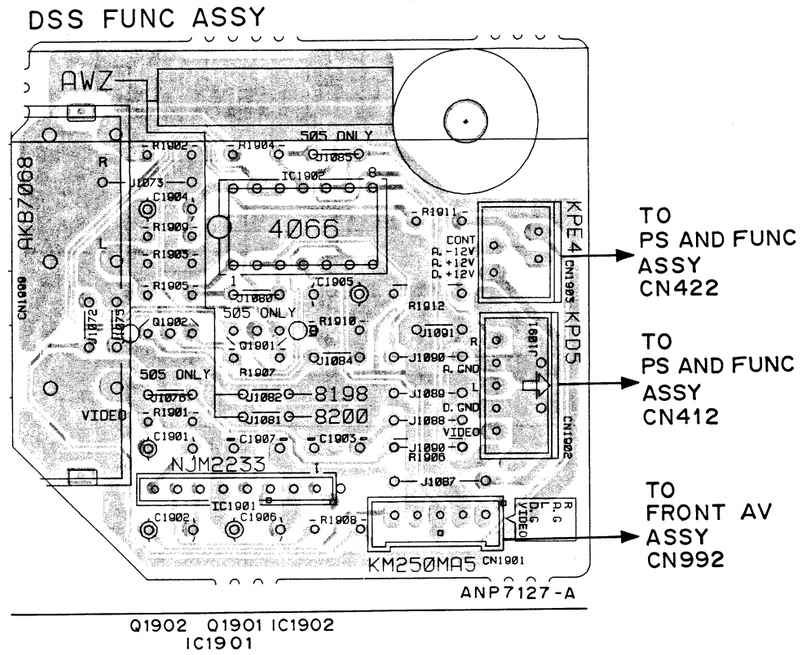
4.11 DSS FUNC ASSY

SCH-11



•This diagram is viewed from the mounted parts side.

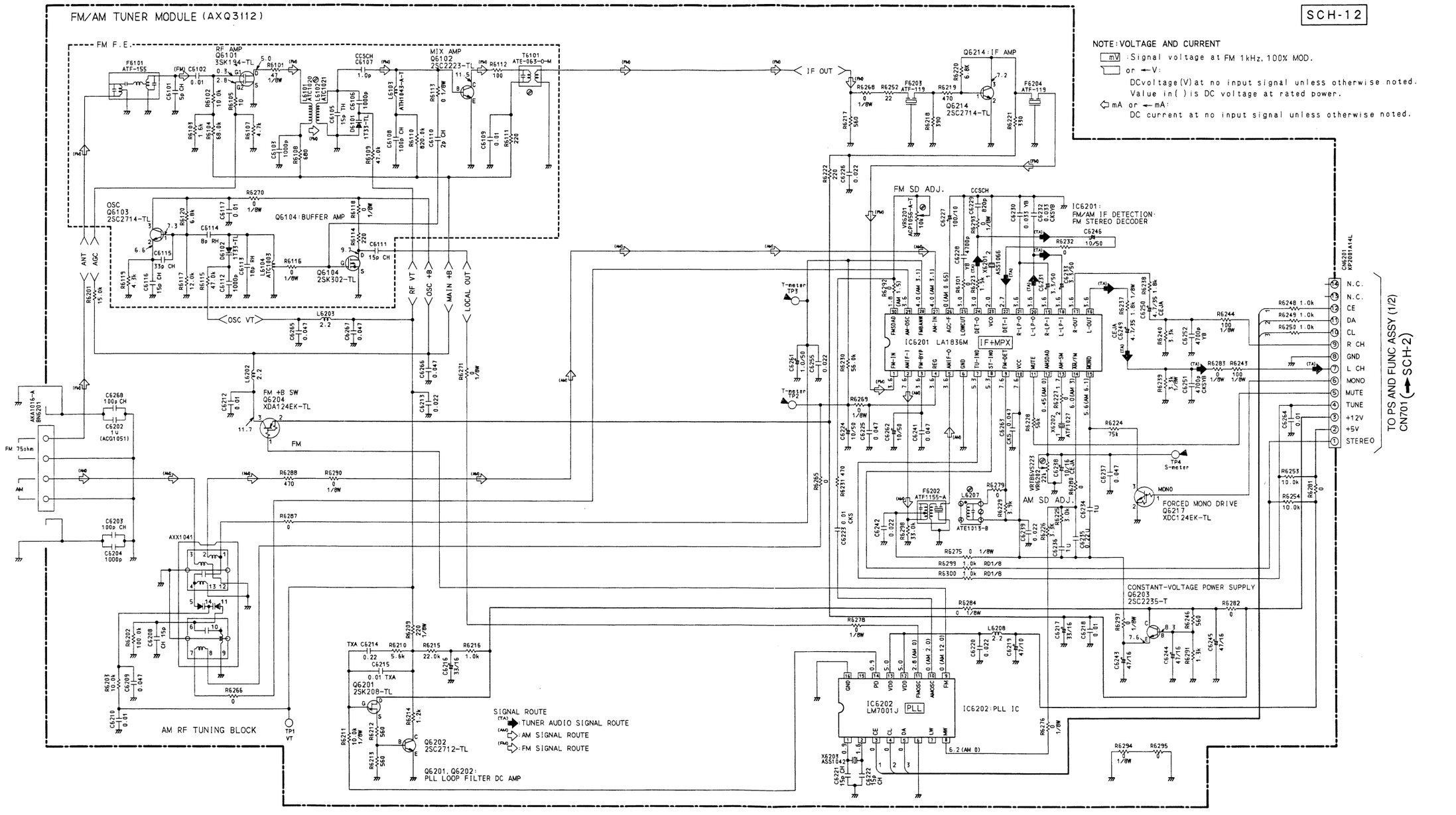
PCB-9



Q1902 Q1901 IC1902
IC1901

- The parts mounted on this PCB include all necessary parts for several destinations. For further information for respective destinations, be sure to check with the schematic diagram.

4.12 FM/AM TUNER MODULE

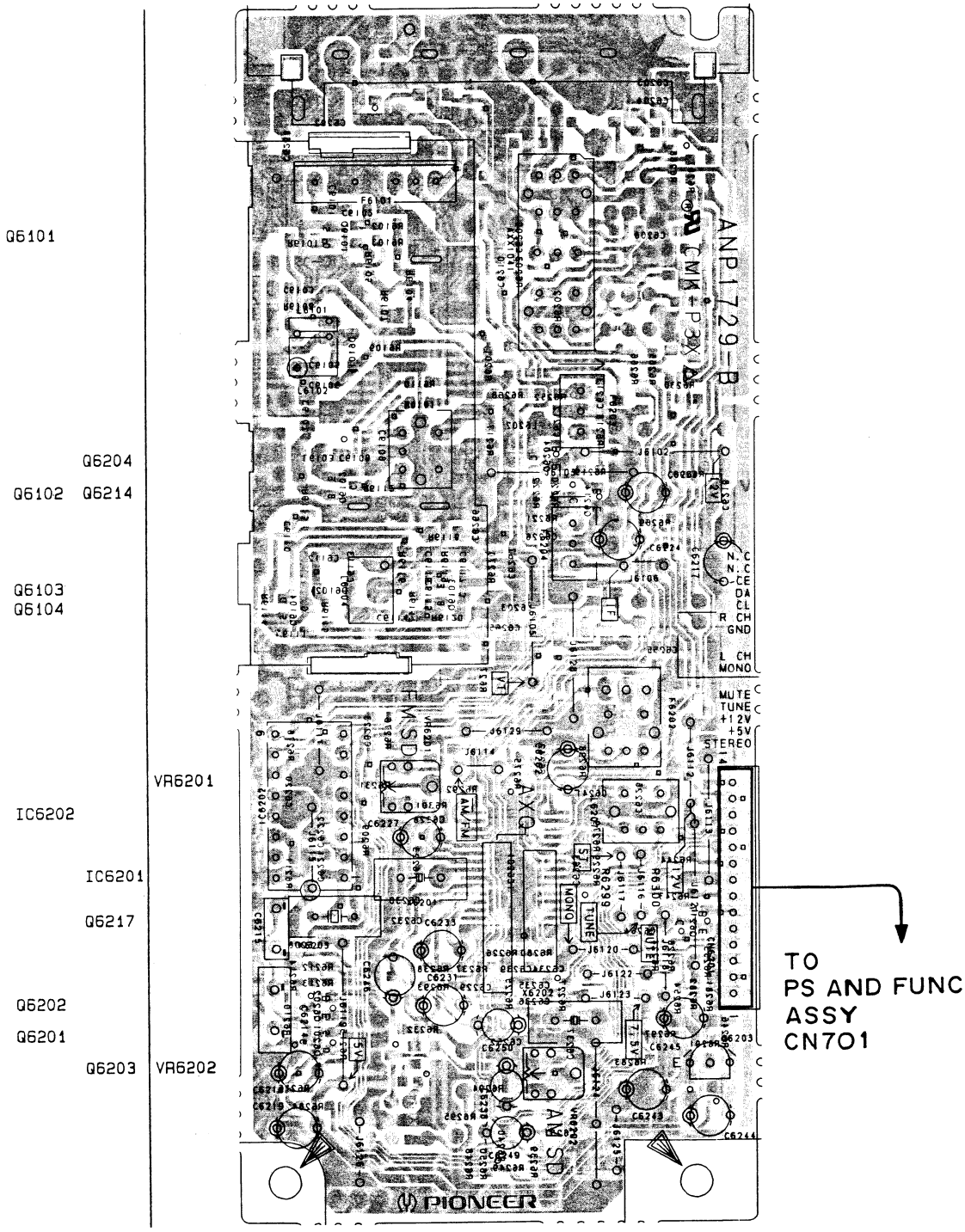


•This diagram is viewed from the mounted parts side.

- The parts mounted on this PCB include all necessary parts for several destinations. For further information for respective destinations, be sure to check with the schematic diagram.

PCB-10

FM/AM TUNER MODULE



5. PCB PARTS LIST

NOTES:

- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by " ⊙ " are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*
- *When ordering resistors, first convert resistance values into code form as shown in the following examples.*

Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47K ohm (tolerance is shown by J=5%, and K=10%).

560 Ω → 56 × 10¹ → 561 ..... RD1/4PU 5 6 1 J
47 kΩ → 47 × 10³ → 473 ..... RD1/4PU 4 7 3 J
0.5 Ω → 0R5 ..... RN2H 0 R 5 K
1 Ω → 1R0 ..... RS1P 1 R 0 K

Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62 kΩ → 562 × 10¹ → 5621 ..... RN1/4PC 5 6 2 1 F

■ LIST OF WHOLE PCB ASSEMBLIES

Mark	PCB Assemblies	Part No.				Remarks
		VSX-605S		VSX-505S		
		KUXJ	KCXJ	KUXJ	KCXJ	
	FM/AM TUNER MODULE	AXQ3112	AXQ3112	AXQ3112	AXQ3112	
	MOTHER ASSY	AWK7237	AWK7237	AWK7281	AWK7281	
NSP	├ TRANS ASSY	AWZ7591	AWZ7591	AWZ7591	AWZ7591	
	├ REG. ASSY	AWZ7925	AWZ7925	AWZ7592	AWZ7592	
	├ PS AND FUNC ASSY	AWZ8185	AWZ8185	AWZ8187	AWZ8187	
	└ VOL. ASSY	AWZ8207	AWZ8207	AWZ8207	AWZ8207	
	FL AND AMP ASSY	AWK7238	AWK7238	AWK7284	AWK7284	
	├ AMP ASSY 200W	AWZ8189	AWZ8189	AWZ8189	AWZ8189	
	├ AMP ASSY	AWZ8191	AWZ8191	AWZ8191	AWZ8191	
	├ FL AND UCOM ASSY	AWZ8192	AWZ8192	AWZ8194	AWZ8194	
	└ IR RECEIVER ASSY	AWX7012	AWX7012	Not Used	Not Used	
	├ PHOTO DIODE ASSY	AWZ7657	AWZ7657	Not Used	Not Used	
	└ RF AMP ASSY	AWZ7658	AWZ7658	Not Used	Not Used	
NSP	├ H.P. ASSY	AWZ8196	AWZ8196	AWZ8196	AWZ8196	
	├ FRONT AV ASSY	AWZ8197	AWZ8197	Not Used	Not Used	
	└ DSS FUNC ASSY	AWZ8198	AWZ8198	AWZ8200	AWZ8200	
	C.G UCOM ASSY	AWK7300	AWK7300	Not Used	Not Used	
	GUI AND UCOM ASSY	AWQ7006	AWQ7006	Not Used	Not Used	

■ CONTRAST OF PCB ASSEMBLIES

REG. ASSY

AWZ7925 and AWZ7592 have the same construction except for the following:

Mark	Symbol & Description	Part No.		Remarks
		AWZ7925	AWZ7592	
	R430	RS3LMF271J	RS3LMF821J	

PS AND FUNC ASSY

AWZ8185 and AWZ8187 have the same construction except for the following:

Mark	Symbol & Description	Part No.		Remarks
		AWZ8185	AWZ8187	
	IC705	NJM78M56FA	Not Used	
	Q470	Not Used	2SA933S	
	Q471	Not Used	DTC124ES	
	Q484	2SC4793	Not Used	
	Q803	2SC1740S	Not Used	
	D413, D414	1SS252	Not Used	
	D419	Not Used	MTZJ5.6A	
	D470, D473, D474	Not Used	1SS252	
	D496	MTZJ13A	Not Used	
	C409	CEAS470M50	Not Used	
	C411	CKCYX104M25	Not Used	
	C412	Not Used	CEAS470M25	
	C415	CEHAQ102M25	CEAS102M25	
	C807	CEAS101M25	Not Used	
	C808	CKCYF473Z50	Not Used	
	C813	CEANP3R3M50	CEAS4R7M50	
	R433	Not Used	RS2LMF151J	
	R434	RD1/8PM221J	Not Used	
	R439	RD1/2PM220J	RD1/2PM470J	
	R444	RD1/2PM100J	Not Used	
	R470, R471	Not Used	RD1/8PM224J	
	R472	Not Used	RD1/8PM562J	
	R473	Not Used	RD1/8PM103J	
	R474	Not Used	RD1/8PM102J	
	R495	RS1LMF122J	Not Used	
	R497	RS2LMF820J	Not Used	
	R803	RD1/8PM680J	RD1/8PM750J	
	R808	RD1/2PM271J	Not Used	
	R811	RD1/8PM151J	Not Used	
	R1812, R1827	RD1/8PM472J	RD1/8PM392J	
	CN407 2P mini jack	Not Used	AKN1006	
	CN804 9P plug	53290-0910	Not Used	
	T401 Power transformer	ATT7006	ATT1223	

DSS FUNC ASSY

AWZ8198 and AWZ8200 have the same construction except for the following:

Mark	Symbol & Description	Part No.		Remarks
		AWZ8198	AWZ8200	
	IC1901	NJM2233BLA	Not Used	
	IC1902	BU4066BC	Not Used	
	Q1901	DTA124ES	Not Used	
	Q1902	DTC124ES	Not Used	
	C1902, C1904, C1905	CEAS470M25	Not Used	
	R1906	RD1/8PM470J	RD1/4PU470J	
	R1907	RD1/8PM104J	Not Used	
	R1908	RD1/8PM102J	RD1/4PU102J	
	R1909, R1910	RD1/8PM102J	Not Used	
	R1911, R1912	RD1/8PM152J	Not Used	
	CN1901	KM250MA5	Not Used	

FL AND UCOM ASSY

AWZ8192 and AWZ8194 have the same construction except for the following:

Mark	Symbol & Description	Part No.		Remarks
		AWZ8192	AWZ8194	
	IC902	PDG169A	PDG171A	
	IC2101	M5218AP	Not Used	
	IC2102	TC74HC02AF	Not Used	
	IC2103	M5223P	Not Used	
	Q902, Q903	Not Used	2SC1740S	
	Q911	2SA1145	Not Used	
	Q912, Q955	DTC124ES	Not Used	
	Q956, Q2101, Q2103, Q2132	2SC1740S	Not Used	
	Q2104, Q2133	DTA124ES	Not Used	
	Q2106	DTC143ES	Not Used	
	Q2131	2SA933S	Not Used	
	D902	Not Used	1SS252	
	D937-D944	AEL1122	Not Used	
	D951, D952, D960, D2101-D2103,	1SS252	Not Used	
	D2131-D2133	1SS252	Not Used	
	D961	MTZJ8.2	Not Used	
	L2101	LAU221J	Not Used	
	S906, S927, S930	ASG1034	Not Used	
	C902	Not Used	CKCYX103M25	
	C912	CKPUYF473Z16	Not Used	
	C2101	CKPUYF103Z25	Not Used	
	C2102	CEJA221M6	Not Used	
	C2103	CEAS100M50	Not Used	
	C2104	Not Used	CEAS221M10	
	C2131	CEAS4R7M50	Not Used	
	C2132, C2134	CKCYF103Z50	Not Used	
	C2133	CFTXA103J50	Not Used	
	C2135	CKCYX104M25	Not Used	
	R902, R905	Not Used	RD1/8PM101J	
	R903, R942, R943	Not Used	RD1/8PM103J	
	R904	Not Used	RD1/8PM562J	
	R948	RD1/8PM473J	Not Used	
	R976, R2107	RD1/8PM472J	Not Used	
	R996	RD1/8PM270J	Not Used	
	R998, R2113	RD1/8PM223J	Not Used	
	R2101	RD1/8PM563J	Not Used	
	R2102, R2103, R2106, R2108, R2112,	RD1/8PM222J	Not Used	
	R2135, R2139, R2143	RD1/8PM222J	Not Used	
	R2104	RD1/8PM753J	Not Used	
	R2105, R2114, R2134, R2140	RD1/8PM102J	Not Used	
	R2111, R2136, R2137, R2142	RD1/8PM103J	Not Used	
	R2131	RD1/8PM474J	Not Used	
	R2118	RD1/8PM562J	Not Used	
	R2121	RD1/8PM470J	Not Used	
	R2132, R2133, R2141	RD1/8PM104J	Not Used	
	R2138	RD1/8PM332J	Not Used	
	R2144	RD1/8PM392J	Not Used	
	Cable holder	AKT1012	Not Used	
	Shield case A	ANK7009	Not Used	
	Shield case B	ANK7010	Not Used	
	Remote receiver unit	Not Used	GP1U58X	

■ PARTS LIST FOR VSX-605S/KUXJ

Mark	No.	Description	Part No.

FM/AM TUNER MODULE

SEMICONDUCTORS

	IC6201	LA1836M
	IC6202	LM7001J
	Q6102	2SC2223
	Q6203	2SC2235
	Q6202	2SC2712
	Q6103, Q6214	2SC2714
	Q6201	2SK208
	Q6104	2SK302
	Q6101	3SK194
	Q6204	XDA124EK
	Q6217	XDC124EK
	D6101, D6102	1T33

COILS AND FILTERS

	L6104	ATC1003
	L6101	ATC1020
	L6102	ATC1021
	T6101	ATE-063
	L6207	ATE1013
	F6203, F6204	ATF-119
	F6101	ATF-155
	F6202	ATF1155
	L6103 (2.2μH)	ATH1043
	L6202, L6203, L6208	LCTA2R2J3225

CAPACITORS

	C6202, C6234, C6236 (105μF/16V)	ACG1051
	C6107	CCSCH010C50
	C6229	CCSCH821J50
	C6110	CCSQCH020C50
	C6101	CCSQCH050C50
	C6108, C6203, C6268	CCSQCH101J50
	C6111, C6116, C6208, C6221, C6222	CCSQCH150J50
	C6115	CCSQCH330J50
	C6114	CCSQRH080D50
	C6113	CCSQRH180J50
	C6105	CCSQTH150J50
	C6261	CEAS010M50
	C6224, C6246, C6262	CEAS100M50
	C6227	CEAS101M10
	C6216, C6217	CEAS330M16
	C6231, C6233	CEAS3R3M50
	C6219	CEAS470M10
	C6243-C6245	CEAS470M16
	C6238	CEJA100M16
	C6249, C6250	CEJA4R7M35
	C6215	CFTXA103J50
	C6214	CFTXA224J50
	C6103, C6106, C6112, C6204	CKSQYB102K50
	C6102, C6109, C6117, C6210, C6264	CKSQYB103K50
	C6213	CKSQYB223K50
	C6230	CKSQYB333K50
	C6228, C6252	CKSQYB472K50
	C6209, C6237, C6265, C6267	CKSQYB473K50
	C6212, C6218	CKSQYF103Z50
	C6220, C6226, C6239, C6242, C6255	CKSQYF223Z50
	C6235	CKSQYF224Z25
	C6225, C6241, C6266	CKSQYF473Z50
	C6232	CKSYB333K50
	C6251	CKSYB472K50
	C6223	CKSYF103Z50
	C6263	CKSYF473Z50

RESISTORS

	R6299, R6300	RD1/8PM102J
	R6113, R6116, R6118, R6268-R6271	RS1/8S000J
	R6275, R6276, R6278, R6283, R6284	RS1/8S000J
	R6290, R6293, R6294, R6297	RS1/8S000J
	R6243, R6244	RS1/8S101J
	R6211	RS1/8S103J
	R6237	RS1/8S182J
	R6209	RS1/8S221J
	R6239	RS1/8S332J
	R6101	RS1/8S470J
	VR6201 (10kkΩ)	ACP1056
	VR6202	VRTB6VS223
	Other Resistors	RS1/10S□□□J

OTHERS

	BN6201	TERMINAL 4P	AKA1016
	X6203	CRYSTAL RESONATOR	ASS1042
	X6201	CRYSTAL RESONATOR	ASS1066
	X6202	CERAMIC RESONATOR	ATF1027
	8001	AM RF TUNING BLOCK	AXX1025
	CN6201	14P SOCKET	KP200IA14L

TRANS ASSY

OTHERS

	4	CABLE HOLDER 6P	AKT1079

REG. ASSY

SEMICONDUCTORS

	IC451, IC452	NJM78M12FA
	IC453	NJM79M12FA
	Q424	2SC1740S
	Q413	2SC4793
	Q410	DTA124ES
	Q411	DTC124ES
	D410	MTZJ12B
	D409	MTZJ13B

CAPACITORS

	C451, C453, C455	CEAS101M25
	C450, C452, C454	CKCYF102Z50
	C456	CKCYF103Z50

RESISTORS

	R421	RD1/4PMF2R2J

Mark	No.	Description	Part No.
	R435		RS1LMF4R7J
	R420		RS2LMF222J
	R422, R423, R436, R437		RS2LMF330J
	R430		RS3LMF271J
	Other Resistors		RD1/8PM□□□J

OTHERS

	451	CABLE HOLDER 4P	AKT1007

PS AND FUNC ASSY

SEMICONDUCTORS

	IC702		BU4052BC
	IC1804		LA2785
	IC801		LA7952
	IC1803		LV1011
	IC1801, IC1802, IC701, IC704		NJM4558D-D
	IC705		NJM78M56FA
	IC703		TC9163AN
	Q406		2SA1515
	Q419, Q420, Q422		2SA933S
	Q407-Q409, Q416, Q791, Q792		2SC1740S
	Q801, Q803		2SC1740S
	Q418, Q481, Q482, Q485, Q486		2SC2878
	Q802		2SC2878
	Q484		2SC4793
	Q1801		2SD468
	Q483, Q707, Q708		DTA143ES
	Q421, Q423		DTC124ES
	Q402-Q404, Q417		DTC143ES
	D422-D425, D427-D430		1SR139-100
	D1809-D1812, D402-D404, D407		1SS252
	D411, D413-D415, D418, D420		1SS252
	D426, D435-D437, D475		1SS252
	D491-D495, D703, D801		1SS252
	D421, D433		D5SBA20(B)
	D496		MTZJ13A
	D438-D441		MTZJ18B
	D412		MTZJ18C
	D408		MTZJ4.3C
	D416		MTZJ5.1A
	D417		MTZJ5.6C
	D1813		MTZJ9.1C

COILS AND FILTERS

	X1801 (8.00MHz)		ASS1015
	L1801		LAU2R2J

SWITCHES AND RELAYS

	RY401		ASR1036
	RY402, RY403		ASR1044
	RY404, RY405, RY407, RY408		ASR7001

CAPACITORS

	C418, C421 (0.01μF/150V)		ACG1005
	C422 (0.022μF/400V)		ACG1030
	C420 (0.01μF/400V)		ACG1054
	C413, C414 (12000μF/80V)		ACH7010
	C1801-C1803		CCCCH101J50
	C727, C728		CCCSL221J50
	C1842, C1861		CEANL3R3M50
	C1838, C1840, C1857, C1859		CEANL4R7M50
	C813		CEANP3R3M50
	C1823		CEAS010M50
	C1806, C1809, C1812, C1815, C1826		CEAS100M50
	C1831-C1833, C1847-C1850		CEAS100M50
	C1852, C1853, C410, C713, C714		CEAS100M50
	C743, C744		CEAS100M50
	C1811, C425		CEAS101M10
	C729, C730, C748, C754, C807		CEAS101M25
	C809, C810		CEAS101M25
	C416		CEAS102M35
	C1819		CEAS221M10
	C1817, C1846, C1851, C406		CEAS221M16
	C417		CEAS222M35
	C1804, C1807, C1810, C1813, C1825		CEAS2R2M50
	C737, C738, C749, C750		CEAS2R2M50
	C1816, C1834, C400, C739, C740		CEAS470M25
	C806		CEAS470M25
	C407, C409		CEAS470M50
	C803, C804		CEAS471M6R3
	C751, C752, C801, C802		CEAS4R7M50
	C1841, C1860		CEASR15M50
	C1837, C1839, C1856, C1858		CEASR47M50
	C415		CEHAQ102M25
	C1835, C1836, C1854, C1855		CFTXA104J50
	C1843, C1862		CFTXA154J50
	C1820, C1822		CFTXA333J50
	C1863		CFTXA474J50
	C741, C742, C747		CKCYB102K50
	C745, C746, C753, C755		CKCYF103Z50
	C808, C811, C812		CKCYF473Z50
	C1808, C1814, C411, C419		CKCYX104M25
	C1864, C1865		CKCYX473M25
	C1821		CQMA152J50
	C1844		CQMA223J50
	C735, C736		CQMA242J50
	C1845		CQMA473J50
	C1830		CQMA681J50
	C733, C734		CQMA822J50

RESISTORS

	R441 (2.2M/1/2W)		ACN-208
	R417 (150Ω)		ACN7002
	R444		RD1/2PM100J
	R439		RD1/2PM220J
	R807, R808		RD1/2PM271J
	R440		RD1/2PM560J
	R494		RD1/2PMF820J
	R495		RS1LMF122J
	R431		RS2LMF101J

Mark	No.	Description	Part No.
	R447, R448		RS2LMF331J
	R497		RS2LMF820J
	Other Resistors		RD1/8PM□□□J
OTHERS			
	CN804	9P PLUG	53290-0910
	CN805	15P PLUG	53290-1510
	CN420	FFC CONNECTOR 40P	9604S-40C
	CN404	2P PIN JACK	AKB7001
	CN703	6P PIN JACK	AKB7003
	CN702	12P PIN JACK	AKB7004
	CN401	SPEAKER TERMINAL 6P	AKE7005
	CN421	SPEAKER TERMINAL 8P	AKE7006
	420	AC SOCKET 1P	AKP1060
	414	CABLE HOLDER	AKT1007
	413	CABLE HOLDER 6P	AKT1079
	405	CABLE HOLDER 7P	AKT1080
	408	CABLE HOLDER 12P	AKT1085
	T401	POWER TRANSFORMER	ATT7006
	CN701	14P PLUG	KM200IA14
	CN402	JUMPER CONNECTOR 8P	KPE8
	412	EARTH METAL FITTING	VNF-091

VOL. ASSY

SEMICONDUCTORS

	IC601, IC603	NJM4558D-D
	IC602	NJM4558LD
	IC604	TA8409S
	Q602-Q605	2SC2878
	D601, D602	1SS252
	D603	MTZJ5.1B

CAPACITORS

	C618	CEANP101M10
	C631-C638	CEAS100M50
	C619	CEAS101M25
	C617	CEASR47M50
	C640	CFTXA223J50
	C626	CKCYF473Z50

RESISTORS

	VR601 (100kΩ)	ACX7005
	Other Resistors	RD1/8PM□□□J

OTHERS

	CN604 15P SOCKET	52418-1510
	603 CABLE HOLDER	AKT1012

AMP ASSY 200W

SEMICONDUCTORS

	IC201	UPC4570C
	Q203-Q206, Q213, Q214	2SA1145
	Q281, Q282	2SC2240
	Q201, Q202, Q207, Q208	2SC2705
	Q211, Q212	2SC2705
	D201-D208, D213, D214	1SS252
	D219, D220, D281-D286	1SS252
	D215-D218	MTZJ22D
	D209-D212	MTZJ3.3

CAPACITORS

	C285 (0.01μF/150V)	ACG1005
	C213-C216	CCCSL151K500
	C207-C210	CCCSL560K500
	C283, C284	CEAS101M25
	C205, C206	CEAS101M50
	C201, C202, C211, C212	CEAS2R2M50
	C281, C282	CEAS2R2M50
	C217-C220	CFTXA104J50
	C203, C204	CKCYB471K50

RESISTORS

	R267-R270 (0.33Ω)	ACN7001
	R233, R234	RD1/2PM562J
	R295, R296	RD1/4PMF101J
	R255-R258	RD1/4PMF151J
	R213-R216	RD1/4PMF270J
	R243-R246	RD1/4PMF271J
	R251-R254	RD1/4PMF470J
	R221-R224	RD1/4PMF561J
	R229-R232	RD1/4PMF680J
	R211, R212	RD1/4PMF821J
	R281-R288	RD1/4PMFL222J
	R239-R242	RF1/4PS101J
	R247-R250, R259-R266	RF1/4PS4R7J
	R235, R236	RN1/4PC3001F
	R237, R238	RN1/4PC8200F
	R271, R272	RS2LMF100J
	Other Resistors	RD1/8PM□□□J

OTHERS

	202 CABLE HOLDER 8P	AKT1081
	CN203 JUMPER CONNECTOR 4P	KPE4
	CN201 JUMPER CONNECTOR 5P	KPE5

AMP ASSY

SEMICONDUCTORS

	IC301	UPC4570C
	Q303-Q306	2SA1145
	Q381, Q382	2SC2240
	Q301, Q302, Q307, Q308	2SC2705
	D301-D308, D381-D386	1SS252
	D309-D312	MTZJ3.3
⚠	TH1	150-203-73002

CAPACITORS

	C385 (0.01μF/150V)	ACG1005
	C307-C310	CCCSL151K500
	C383, C384	CEAS101M25
	C305, C306	CEAS101M50

Mark	No.	Description	Part No.
	C301, C302, C311, C312		CEAS2R2M50
	C381, C382		CEAS2R2M50
	C317-C320		CFTXA104J50
	C303, C304		CKCYB471K50
RESISTORS			
	R369, R370 (0.33Ω)		ACN7001
	R333, R334		RD1/2PM392J
	R395, R396		RD1/4PMF101J
	R355-R358		RD1/4PMF151J
	R381-R384		RD1/4PMF222J
	R313-R316		RD1/4PMF270J
	R321-R324		RD1/4PMF511J
	R329-R332		RD1/4PMF680J
	R351-R354		RF1/4PS470J
	R347-R350, R363-R366, R399		RF1/4PS4R7J
	R371, R372		RS2LMF100J
	R397		RS2LMF104J
	Other Resistors		RD1/8PM□□□J
OTHERS			
	302	CABLE HOLDER 8P	AKT1081

FL AND UCOM ASSY

SEMICONDUCTORS

IC2101		M5218AP
IC2103		M5223P
IC901		M66320P
IC951, IC952		NJM4558D-D
IC902		PDG169A
IC2102		TC74HC02AF
Q911		2SA1145
Q2131		2SA933S
Q2101, Q2103, Q2132, Q951, Q952		2SC1740S
Q956		2SC1740S
Q2104, Q2133		DTA124ES
Q909, Q912, Q955		DTC124ES
Q2106, Q907, Q908, Q953, Q954		DTC143ES
D2101-D2106, D2131-D2133		1SS252
D910-D916, D918, D920-D924		1SS252
D951, D952, D958, D960		1SS252
D906-D909		AEL1100
D937-D944		AEL1122
D953		MTZJ2.7
D961		MTZJ8.2

COILS AND FILTERS

X901 (8.00MHz)		ASS1015
L901		LAU220J
L2101		LAU221J

SWITCHES AND RELAYS

S901, S903-S906, S912-S919		ASG1034
S921-S930		ASG1034
S941		ASX7001

Mark	No.	Description	Part No.
CAPACITORS			
	C908		ACH7013
	C951, C952		CCCSL151J50
	C906		CEAS0R1M50
	C2103, C907, C968		CEAS100M50
	C903		CEAS101M10
	C2131, C966		CEAS4R7M50
	C959, C960		CEJA0R1M50
	C967		CEJA100M16
	C957, C958		CEJA100M50
	C909		CEJA101M10
	C2102, C911		CEJA221M6
	C965		CEJA4R7M35
	C955, C956		CEJAR47M50
	C2133		CFTXA103J50
	C963, C964		CFTXA124J50
	C953, C954		CFTXA153J50
	C961, C962		CFTXA273J50
	C994		CKCYB102K50
	C993		CKCYB152K50
	C904		CKCYF102Z50
	C2132, C2134		CKCYF103Z50
	C905, C910		CKCYF473Z50
	C2135		CKCYX104M25
	C2101, C901		CKPUYF103Z25
	C912		CKPUYF473Z16
RESISTORS			
	R912, R914-R916, R989, R990		RD1/2PM332J
	VR953 (500kΩ)		ACS7004
	VR951, VR952 (30kΩ)		ACS7005
	Other Resistors		RD1/8PM□□□J
OTHERS			
	CN901	40P FFC CONNECTOR	9604S-40F
	V901	FL INDICATOR TUBE	AAV7013
	910	CABLE HOLDER	AKT1012
	902	FL HOLDER	AMR7037
	901	SHIELD CASE A	ANK7009
	902	SHIELD CASE B	ANK7010

PHOTO DIODE ASSY

SEMICONDUCTORS

IC2602		PD410PI
IC2601		PFC502
IC2603		SBX8025-H
Q2602		2SC2712
Q2601		2SK302

COILS AND FILTERS

L2601		LAU221K

CAPACITORS

C2602		CCSQCH181J50
C2604		CCSQCH820J50
C2607		CEAL470M6R3
C2605		CKSQYB103K50

Mark	No.	Description	Part No.
	C2603		CKSQYB473K50
	C2601, C2606		CKSQYF104Z25
RESISTORS			
	All Resistors		RS1/10S□□□J
OTHERS			
	7001	LED HOLDER	AMR7040

RF AMP ASSY

SEMICONDUCTORS			
	IC2501		CXA1600P
	IC2502, IC2504		TC7SU04F
	D2501-D2503		1SS352
COILS AND FILTERS			
	L2501, L2502		LAU221K
CAPACITORS			
	TC2501		ACM7001
	C2520		CCSQCH150J50
	C2514		CCSQCH681J50
	C2501		CEAL100M6R3
	C2508		CEAL101M6R3
	C2503		CEAL2R2M35
	C2504		CEALR10M50
	C2507		CKSQYB103K50
	C2513		CKSQYB104K25
	C2502, C2506		CKSQYB473K50
RESISTORS			
	All Resistors		RS1/10S□□□J
OTHERS			
	X2501	CERAMIC RESONATOR	ASS7005

H.P. ASSY

OTHERS			
	CN601	HEADPHONE JACK	AKN7001
	603	CABLE HOLDER 3P	AKT1076

FRONT AV ASSY

CAPACITORS			
	C991, C992		CKCYX473M25
RESISTORS			
	All Resistors		RD1/8PM□□□J
OTHERS			
	991-993	PIN JACK 1P	AKB7011
	CN992	PLUG 5P	KM250MA5

Mark	No.	Description	Part No.

DSS FUNC ASSY

SEMICONDUCTORS			
	IC1902		BU4066BC
	IC1901		NJM2233BLA
	Q1901		DTA124ES
	Q1902		DTC124ES
CAPACITORS			
	C1903		CCCSL221J50
	C1901, C1902, C1904-C1906		CEAS470M25
	C1907		CKCYF103Z50
RESISTORS			
	All Resistors		RD1/8PM□□□J
OTHERS			
	JA1999	PIN JACK 3P	AKB7068
	CN1901	PLUG 5P	KM250MA5
	CN1903	JUMPER CONNECTOR 4P	KPE4

C.G UCOM ASSY

SEMICONDUCTORS			
	IC4501		PD6176A
	D4501, D4502, D4505		1SS352
COILS AND FILTERS			
	X4501 (8.00MHz)		ASS1015
	L4501		LCTA220J3225
CAPACITORS			
	C4501		ACH7013
	C4504		CEAS101M10
	C4506		CKSQYB102K50
	C4502, C4503		CKSQYF473Z50
RESISTORS			
	All Resistors		RS1/10S□□□J
OTHERS			
	J4501	JUMPER WIRE	D15A03-100-2651
	CN4501	JUMPER CONNECTOR 3P	KPE3
	CN4505	JUMPER CONNECTOR 4P	KPE4
	CN4502	JUMPER CONNECTOR 5P	KPE5

GUI AND UCOM ASSY

SEMICONDUCTORS			
	IC1103		LH5268AN1TLL
	IC1105		MM1067XD
	IC1106		NJM78L05A
	IC1102		PD5368A
	IC1104		PD6178A
	IC1101		TC74HC123AF
	Q1110		2SA1515
	Q1109		2SA933S
	Q1101, Q1102, Q1104, Q1107, Q1111		2SC1740S
	Q1106, Q1103		DTC124ES

Mark	No.	Description	Part No.
	D1101, D1103-D1109, D1111		1SS252
	D1114-D1118		1SS252
	D1102		MTZJ2.7
COILS AND FILTERS			
	X1102 (4.00MHz)		ASS1025
	X1103		ASS1056
	X1101 (503kHz)		ASS1112
	L1101, L1102		LAU220J
CAPACITORS			
	C1126		ACH7013
	TC1101		ACM-023
	C1123, C1124		CCCCH150J50
	C1111		CCCCH221J50
	C1125		CCCCH330J50
	C1106, C1108		CEAS010M50
	C1103		CEAS100M50
	C1114, C1118, C1130		CEAS101M10
	C1115, C1116, C1120, C1127		CEAS470M25
	C1113		CEASR47M50
	C1101, C1112		CKCYB102K50
	C1131		CKCYB331K50
	C1109		CKCYB332K50
	C1110		CKCYB471K50
	C1107		CKCYB561K50
	C1104, C1117, C1119, C1121, C1122		CKCYF103Z50
	C1105, C1128, C1129		CKCYF473Z50
	C1132		CKPUYB101K50
RESISTORS			
	R1118		RD1/4PM680J
	Other Resistors		RD1/8PM□□□J
OTHERS			
	CN1184	9P SOCKET	52418-0910
	CN1101	2P MINI JACK	AKN-209
	1103	MINI JACK	AKN7003
	1102	2P MINI JACK	BKN1005
	CN1194	JUMPER CONNECTOR 8P	KPE8
	CN1195	JUMPER CONNECTOR 9P	KPE9

6. ADJUSTMENTS

ADJUSTMENT OF FM TUNER SECTION

- Set the FM/AM selector to FM BAND.
- Connect the wiring as shown in Fig. 1−1.

Step No.	Adjustment Title	FM SG (1kHz, ±75kHz dev.)		Reception Frequency Display	Adjustment Location	Specifications
		Frequency (MHz)	Level (dBμV)			
1	Center Adjustment	98	80	98.0 MHz	L6207	Adjust so that the DC voltage between IC6201-Pin 4 and Pin 28 (or ⊕ leads of C6224 and C6261) becomes 0V±50mV.
2	Front-end Sensitivity Adjustment	98	Low input (0 to 30)	98 MHz	L6102 T6101	Adjust so that the DC voltage between IC6201-Pin 12 and GND (or ⊕ leads of C6238 and GND) becomes at maximum level.
3	Stereo Distortion	98	80	98 MHz	T6101	Minimize the distortion with 1/8 rotation of the core.
4	TUNED IND. Lighting Level	98	15 (±2 dB)	98.0 MHz	VR6201	Adjust so that the indicator of TUNED IND. starts to light up.

Notes:

- *Before adjusting, make sure there is no gap between L6101 and L6102. If there is a gap between them, bring them into contact with each other first, and then make adjustments.*
- *Make indicator adjustments in order of AM → FM.*
- *Adjustment sequence: L6102 T6101*

ADJUSTMENT OF MW TUNER SECTION

- Set the FM/AM selector to AM (MW) BAND.
- Connect the wiring as shown in Fig. 1−1.

Step No.	Adjustment Title	AM SG (400Hz, 30% Mod.)		Reception Frequency Display	Adjustment Location	Specifications
		Frequency (kHz)	Level (dBμV/m)			
1	TUNED IND. Lighting Level	999*1	47 (±2dB)	999 kHz*1	VR6202	Adjust so that the indicator of TUNED IND. starts to light up.

**1: For the area using 10 kHz step, frequencies should be 1000 kHz.*

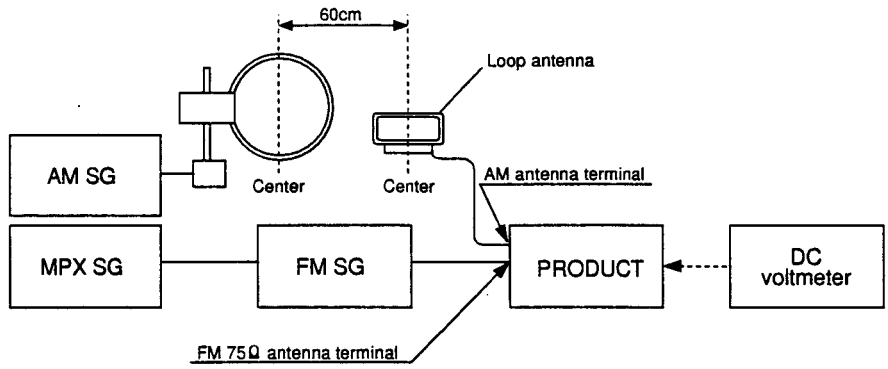


Fig. 1−1 AM and FM Adjustment Wiring Diagram

FM/AM TUNER MODULE

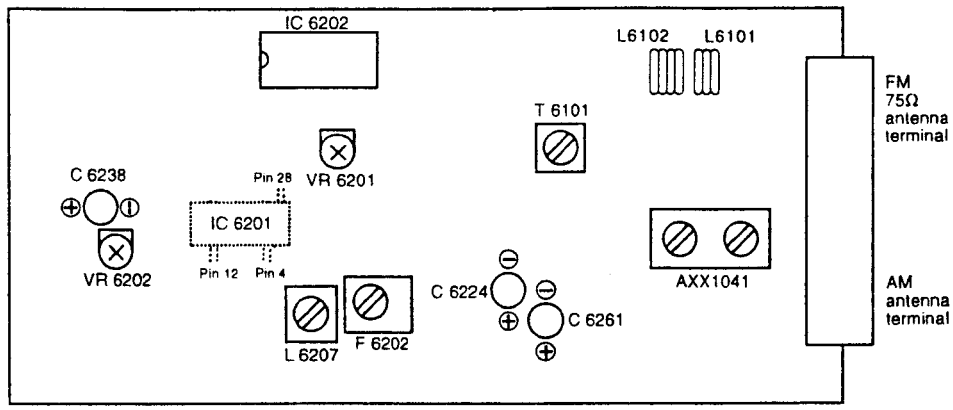


Fig. 1 – 2 Adjustment Points

7. IC INFORMATION

• The information shown in the list is basic information and may not correspond exactly to that shown in the schematic diagrams.

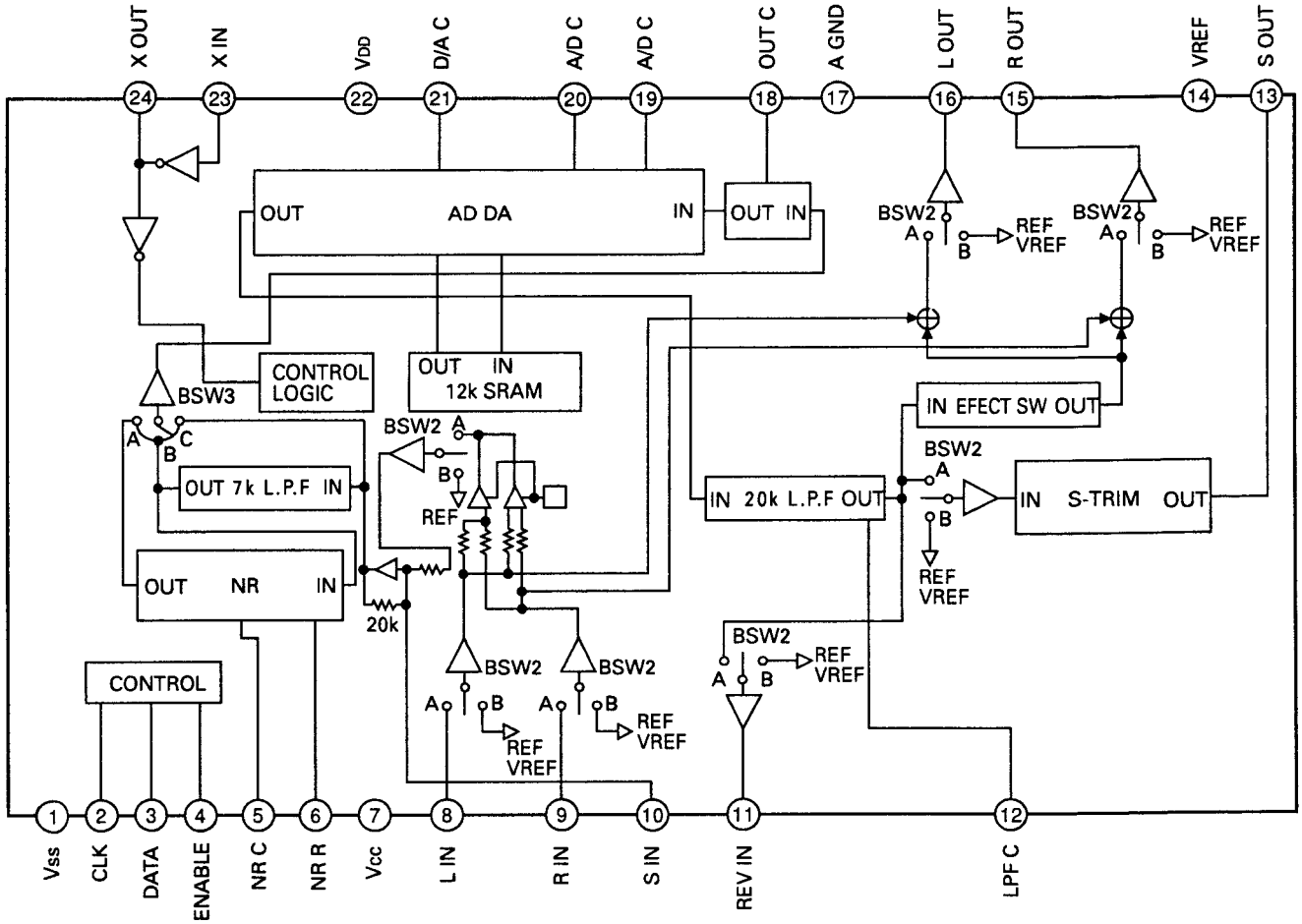
■ PDG169A (For VSX-605S), PDG171A (Fof VSX-505S) (FL AND UCOM ASSY IC902) FRONT U COM

● Pin Function

Pin No.	Pin Name	PDG169A (VSX-605S)		PDG171A (VSX-505S)	
		I/O	Pin Function	I/O	Pin Function
01	MR IN	I	Not used. Pull down	I	As left.
02	SR IN	I	Remote control signal input	I	As left.
03	9K/10K	I	Tuner FREQ step select	I	As left.
04	SR OUT	O	Not used. Open	O	As left.
05	MONO	O	Tuner MPX select	O	As left.
06	TUNED	I	Discrimination input when TUNER reception	I	As left.
07	SMART ST	—	Learning microcomputer control	O	Not used. Open
08	SMART CK	—	Learning microcomputer control	O	Not used. Open
09	SMART DT	—	Learning microcomputer control	O	Not used. Open
10	SMART RST	O	Learning microcomputer control	O	Not used. Open
11	SMART BACKUP	O	Learning microcomputer control	O	Not used. Open
12	GUI ON/ OFF	O	JOG ring control	O	Not used. Open
13	NC	O	NC	O	As left.
14	KEY IN 1	I	Key scan input	I	As left.
15	KEY IN 2	I	Key scan input	I	As left.
16	KEY IN 3	I	Key scan input	I	As left.
17	1M DET	I	Discrimination input when the 1M remote control reception	O	Not used. Open
18	JOG R	I	JOG right direction discrimination input	I	As left.
19	JOG L	I	JOG left direction discrimination input	I	As left.
20	VOL UP	O	Motor VOL UP output	O	As left.
21	VOL DOWN	O	Motor VOL DOWN output	O	As left.
22	GUI DT	I/O	C.G. U-COM control	O	Not used. Open
23	GUI REQ	I/O	C.G. U-COM control	O	Not used. Open
24	WATT IN	I	AMP output detection DC input	I	As left.
25	DC PROTECT	I	AMP output failure detection DC input	I	As left.
26	OVER LOAD	I	AMP output failure detection DC input	I	As left.
27	FAN H/L	O	Fan HI/LOW rotation selection	O	As left.
28	GUI BUSY	I	C.G. U-COM control	O	Not used. Open
29	TEMP IN	I	AMP temperature detection DC input	I	As left.
30	RST	I	U-COM reset input	I	As left.
34	ST FUNC	O	Function SW etc. ST	O	As left.
35	ST SUR	O	Surround ST	O	As left.
36	ST 66320	O	M66320 ST	O	As left.
37	TUNER CE	O	Tuner ST	O	As left.
38	GUI CONT	O	C.G. U-COM control	O	Not used. Open
39	AC RY	O	Power RY. STBY IND control	O	As left.
40	NC	O	NC	O	As left.
41 to 70	FL CONTROL	O	FL control	O	As left.
73	NC	O	NC	O	As left.
74	CK	O	ICs control ST	O	As left.
75	DATA	O	ICs control data	O	As left.
76	T. MUTE	O	Tuner assy muting control	O	As left.
77	STEREO	I	Discrimination input when STEREO reception	I	As left.
78	SR IN DET	I	Whether SR IN pin inserted or not is not discriminated	I	Not used. (Does not function.)
79	WAKE UP	I	Whether SC is present or not is not discriminated	I	As left.
80	GUI CK	I	C.G. U-COM control	I	Not used. Pull down.

■ LV1011 (PS AND FANC ASSY IC1803)
DOLBY SURROUND IC

● Block diagram



■ PD6176A (C.G UCOM ASSY IC4501)
GUI CONTROL MICOM

● Pin Function

Pin No.	Pin Name	I/O	Pin Function	Active
1	P45/SCK1	I	N.C	—
2	P46/SO1	I		—
3	P47/SI1	I		—
4	P50/AN0	I		—
5	P51/AN1	I		—
6	P52/AN2	I		—
7	P53/AN3	I		—
8	P54/AN4	I		—
9	P55/AN5	I		—
10	P56/AN6	I		—
11	P57/AN7	I		—
12	AVcc	I	5V (A/D converter power supply)	—
13	AVR	I	5V (A/D converter reference voltage)	—
14	AVss	I	GND (A/D converter power supply)	—
15	WAKE UP P60/INT0	I	AC pulse input (BACK UP). Used for external interruption.	—
16	SYNC DET P61/INT1	I	Video sync signal input (NTSC/PAL discrimination). Used for external interruption. PAL: 50 Hz, NTSC: 60 Hz	—
17	P62/INT2	I	N.C (PULL DOWN)	—
18	P63/INT3	I		—
19	P64	I		—
20	RESET	I	RESET input	L
21	MOD0	I	GND Memory access mode setting ▸ Internal ROM specification	—
22	MOD0	I		—
23	X0	I	Oscillator 8 MHz	—
24	X1	I		—
25	Vss	I	GND	—
26	P27/ALE	I	N.C	—
27	P26/RD	I		—
28	P25/WR	I		—
29	P24/CLK	I		—
30	P23/RDY	I		—
31	P22/HRQ	I		—
32	P21/HAK	I		—
33	P20/BUFC	I		—
34	P17/A15	I		—
35	P16/A14	I		—
36	P15/A13	I		—
37	P14/A12	I		—
38	P13/A11	I	NTSC/PAL selection. H: NTSC, L: PAL	—
39	P12/A10	I	N.C	—
40	P11/A09	I	OSD IC (M890089) CLOCK	—

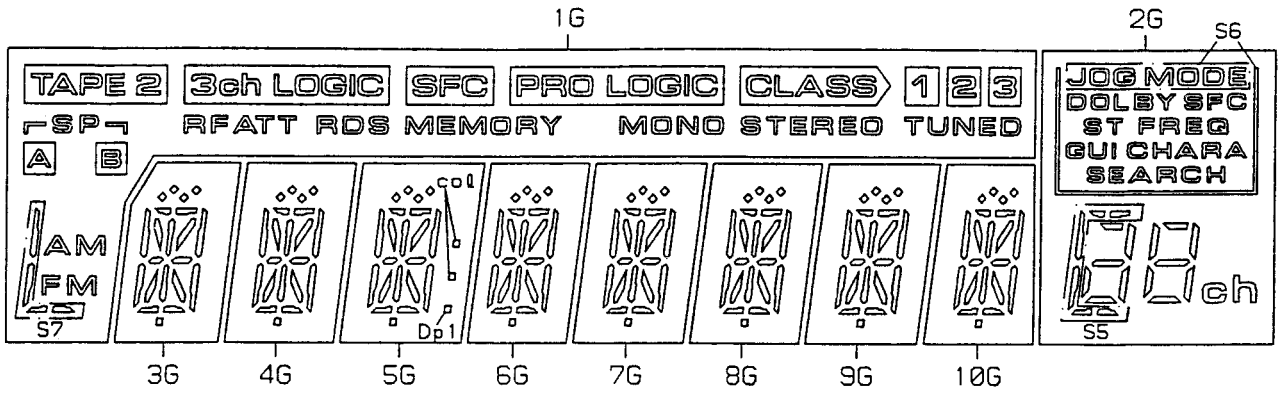
Pin No.	Pin Name	I/O	Pin Function	Active
41	P10/A08	I	OSD IC (M890089) DATA	—
42	P07/AD7	I	OSD IC (M890089) CS	L
43	P06/AD6	I	N.C	—
44	P05/AD5	I	Communication with the main unit microcomputer (PDG170/169) BUSY	H
45	P04/AD4	I/O	Communication with the main unit microcomputer (PDG170/169) DATA	—
46	P03/AD3	I	Communication with the main unit microcomputer (PDG170/169) CONT	H
47	P02/AD2	I/O	Communication with the main unit microcomputer (PDG170/169) REQ.	L
48	P01/AD1	I	Communication with the main unit microcomputer (PDG170/169) CLOCK	—
49	P00/AD0	I	N.C	—
50	Vss	I	GND	—
51	P30/ADST	I	N.C	—
52	P31/SCK1	I		—
53	P32/SO1	I		—
54	P33/SI1	I		—
55	P34/EC	I		—
56	P35/PWC	I		—
57	Vcc	I	Power supply (5V)	—
58	P36/WTO	I	N.C	—
59	P37/PTO	I		—
60	P40	I		—
61	P41	I		—
62	P42	I		—
63	P43	I		—
64	P44/BZ	I		—

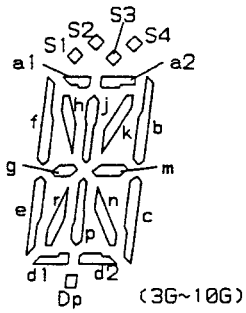
8. FL INFORMATION

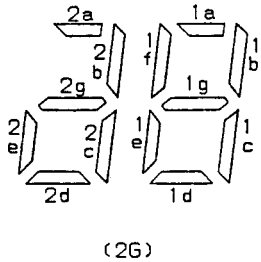
■ AAV7013 (V901: FL AND UCOM ASSY)

● FL TUBE

● Grid Assignment



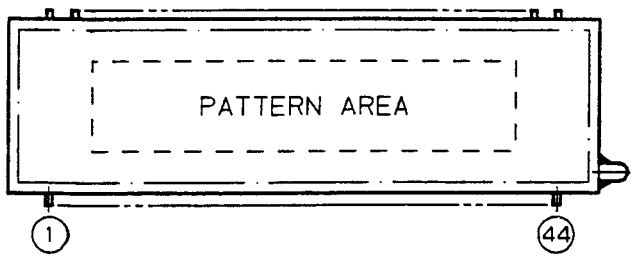




● Anode Connection

	1G	2G	3G,4G	5G	6G~10G
P1	S7	S5	a1	a1	a1
P2	FM	2a,2d	a2	a2	a2
P3	AM	2b	h	h	h
P4	A	2g	j	j	j
P5	B	2c	k	k	k
P6	SP	2e	b	b	b
P7	TAPE 2	1a	f	f	f
P8	RFATT	1b	m	m	m
P9	3ch LOGIC	1f	g	g	g
P10	RDS	1g	c	c	c
P11	SFC	1c	e	e	e
P12	MEMORY	1e	r	r	r
P13	PRO LOGIC	1d	p	p	p
P14	MONO	ch	n	n	n
P15	TUNED	S6	d1	d1	d1
P16	3	SFC	d2	d2	d2
P17	2	FREQ	Dp	Dp	Dp
P18	1	CHARA	S3	S3	S3
P19	CLASS	SEARCH	S1	S1	S1
P20	STEREO	GUI	S4	S4	S4
P21	-	-	S2	S2	S2
P22	-	DOLBY	-	col	-
P23	-	ST	-	Dp1	-

● Pin Assignment



● Pin Connection

PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
CONNECTION	F11	F11	NP	NP	10	9G	8G	7G	6G	5G	4G	3G	2G	1G	NC	NC	NC	P32	P31	P30	P29	P28	P27	P26	P25	P24	P23	P22	P21	P20	P19	P18	P17	P16	P15	P14	P13	P12	P11	P10	P9	P8	P7	P6	P5	P4	P3	P2	P1	NP	NP	F22	F22

NOTE 1) F1,F2 --- Filament
2) NP ------ No pin
3) NC ------ No connection
4) DL ------ Datum Line
5) 1G~10G --- Grid

9. DISASSEMBLY

CAUTION !

You will get an electric shock if you touch the Radiator (Heat-sink) when the power cord is connected to the power source. Also, the Electrolytic Capacitor contains a charge even when the power cord is unplugged, so the charge must be removed when the bonnet has been taken off.

< Removing the Charge >

① Connect the Radiator (top side) and either the Chassis or the Rear panel for 2 to 3 seconds with a Resistor of more than 5W/10Ω.

② Connect the +B lead on the J2 and either the Chassis or the Rear panel for 2 to 3 seconds with a Resistor of more than 5W/10Ω.

9.1 PS AND FUNC ASSY

1. Remove the Bonnet case.
2. Remove the two screws ①. (Fig. 1)
3. Remove the screw ②.
4. Remove the four screws ③ holding the PS AND FUNC assy. (Fig. 2)
5. Remove the Round knob L and remove the screw ④ between the volume and the front panel. (Fig. 1)
6. Remove the VOL assy from the PS AND FUNC assy.
7. Release the fook of Rear Panel from the Chassis. (Fig. 3)
8. Rotate the rear panel, and power block from the chassis at the same time, according to the Fig. 4

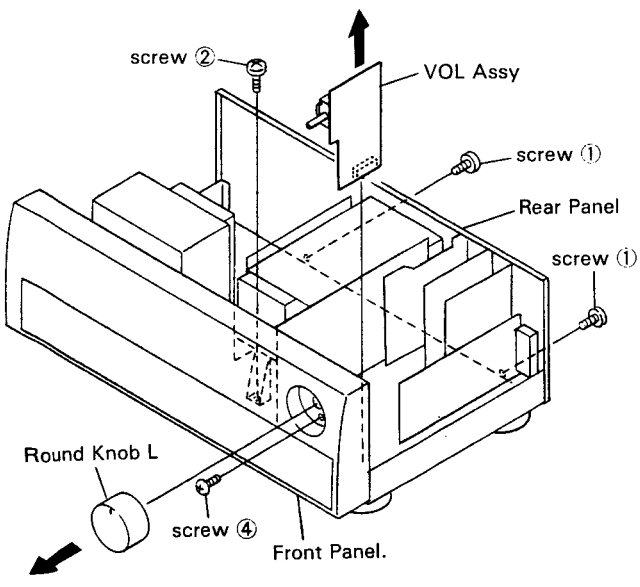


Fig. 1

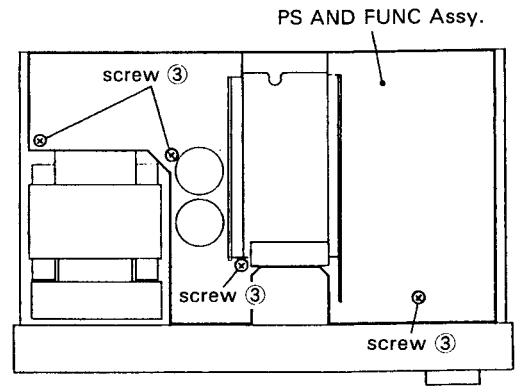


Fig. 2

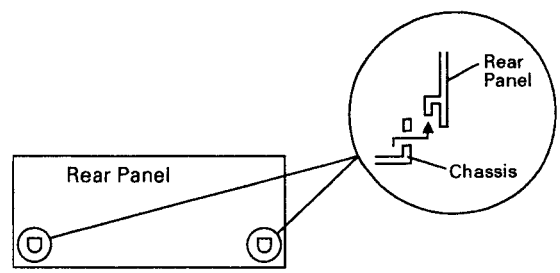


Fig. 3

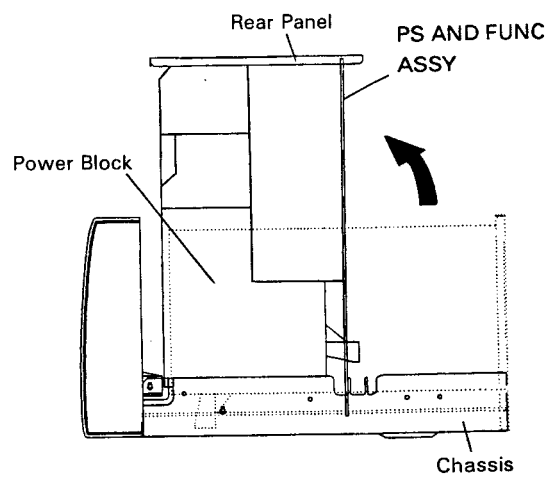
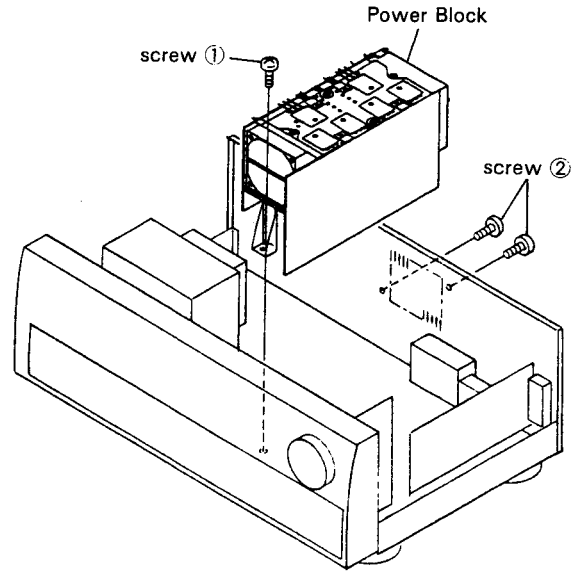


Fig. 4

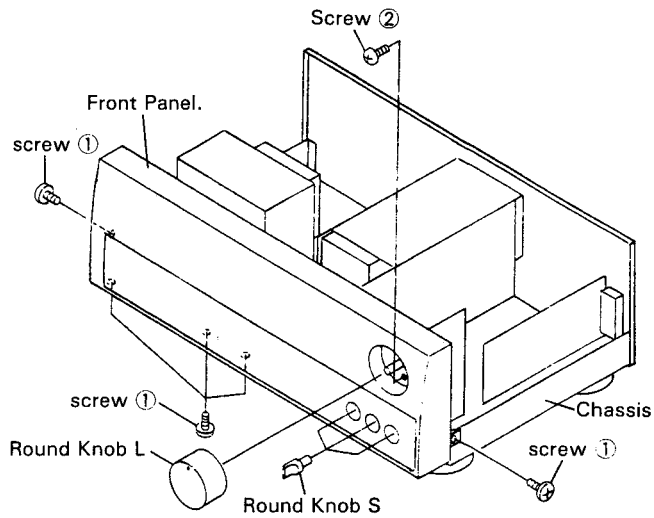
9.2 POWER BLOCK

1. Remove the Bonnet case.
2. Remove the screw ①.
3. Remove the two screws ②.



9.3 FL AND UCOM ASSY

1. Remove the Bonnet case.
2. Remove the five screws ①.
3. Remove the Round knob L and remove the screw ② between the volume and the front panel.
4. Remove the front panel from the chassis (watching out for the claw on the front panel bottom).
5. Remove the three **Round Knob** S (BASS, TREBLE, BALANCE).
6. Remove the screws in Fig. 2 and remove the FL AND UCOM assy.



<Location of the FL AND UCOM assy Fixing Screws>

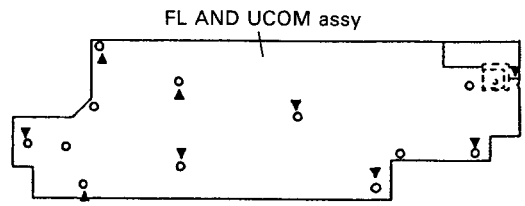


Fig. 2

Points where the PCB Mold (AMR2533) is attached to the chassis: 7 points stamped on the chassis as Nos. 0, 1, 2, 3, 4, 7, and 10.

10. REMOTE CONTROL UNIT [CU-VSX104 (AXD7082)]

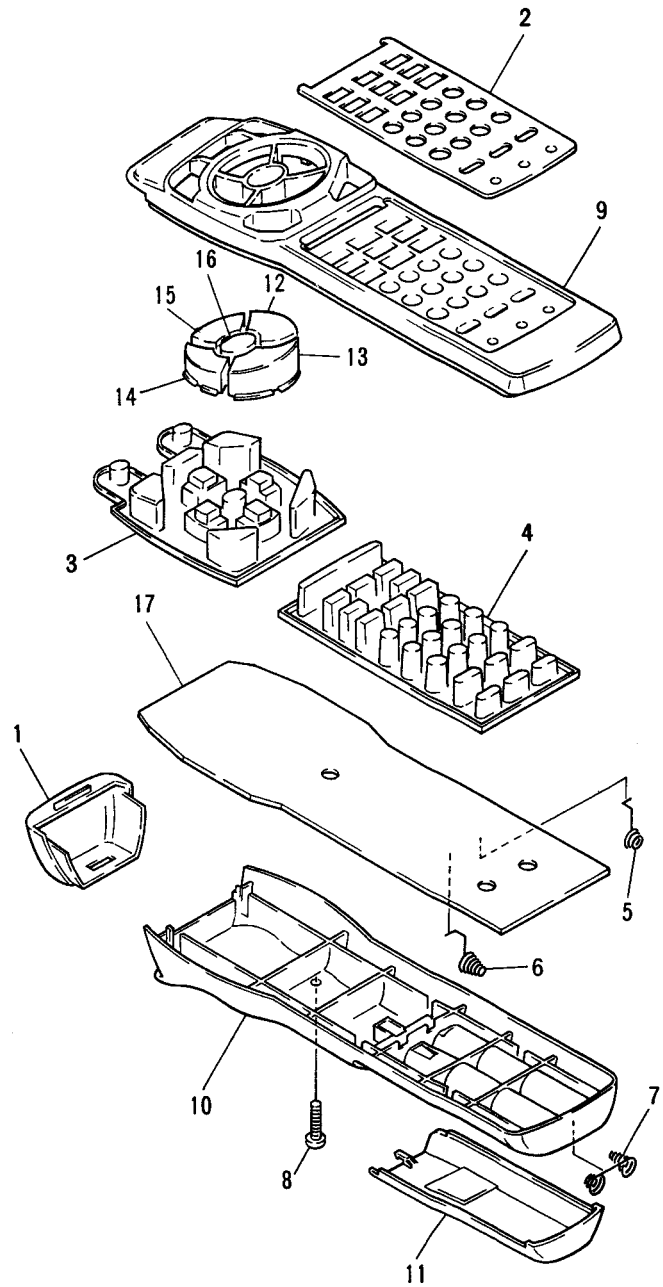
10.1 EXPLODED VIEW AND PARTS LIST

NOTES:

- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the parts. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by " ⊙ " are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*

■ Parts List

Mark	No.	Description	Part No.
	1	Filter	AZA7152
	2	Name plate	AZA7153
	3	Rubber sheet (A)	AZA7154
	4	Rubber sheet (B)	AZA7155
	5	Spring (+)	AZB7049
	6	Spring (–)	AZB7050
	7	Spring	AZB7051
	8	Screw	AZB7052
	9	Remo-con case (A)	AZN7325
	10	Remo-con case (B)	AZN7326
	11	Battery cover	AZN7327
	12	Main key (FF)	AZN7328
	13	Main key (STOP)	AZN7329
	14	Main key (REV)	AZN7330
	15	Main key (PAUSE)	AZN7331
	16	Main key (PLAY)	AZN7332
NSP	17	PCB	AZW7189



10.2 PCB PARTS LIST

NOTES:

- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by " ⊙ " are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*
- *When ordering resistors, first convert resistance values into code form as shown in the following examples.*

Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47K ohm (tolerance is shown by J=5%, and K=10%).

560 Ω → 56 × 10¹ → 561 ..... RD1/4PU 5 6 1 J
47 kΩ → 47 × 10³ → 473 ..... RD1/4PU 4 7 3 J
0.5 Ω → 0R5 ..... RN2H 0 R 5 K
1 Ω → 1R0 ..... RS1P 1 R 0 K

Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62 kΩ → 562 × 10¹ → 5621 ..... RN1/4PC 5 6 2 1 F

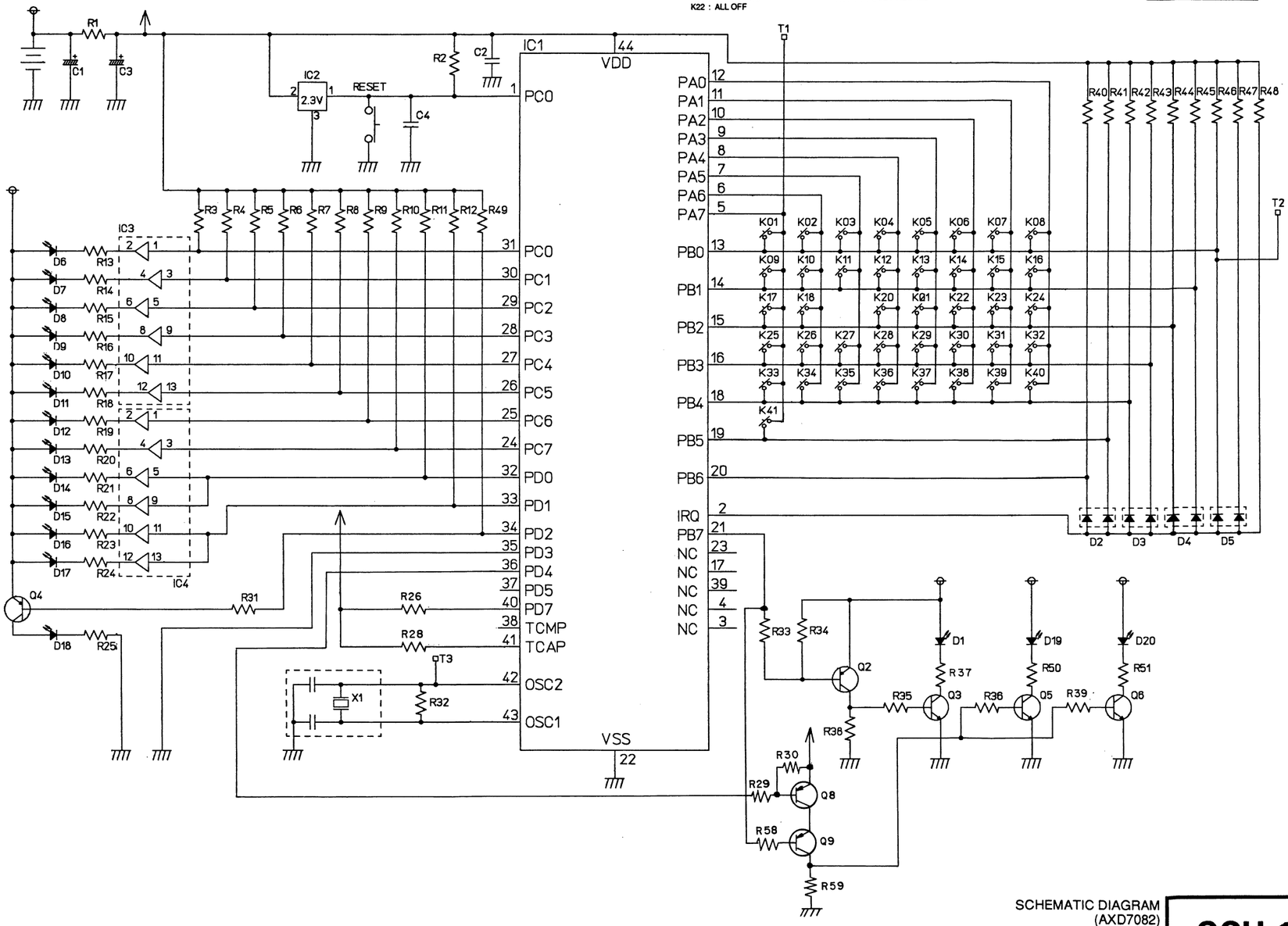
Mark	No.	Description	Part No.
SEMICONDUCTORS			
	IC1		MC68HC05C9FN
	IC2		RH5VA23AA-T1
	IC3, IC4		TC74HC07AF
	Q2, Q4, Q8, Q9		2SA1037K
	Q3, Q5, Q6		2SC3265
	D1, D19, D20		SE303A-C
	D2-D5		1SS181
	D6-D18		CL-230SR
CAPACITORS			
	C1		CEAS470M10
	C2, C4		CKSQYB104K25
	C3		CEAS221M10
RESISTORS			
	R37, R50, R51		RD1/6PM020J
	Other Resistors		RS1/10S□□□J
OTHERS			
	X1	RESONATOR	FCR4.0MC3

NOTE FOR SCHEMATIC DIAGRAMS (Type 2A)

1. **When ordering service parts, be sure to refer to "PARTS LIST of EXPLODED VIEWS" or "PCB PARTS LIST".**
2. **Since these are basic circuits, some parts of them or the values of some components may be changed for improvement.**
3. **RESISTORS:**
   Unit: k:kΩ, M:MΩ, or Ω unless otherwise noted.
   Rated power: 1/4W, 1/6W, 1/8W, 1/10W unless otherwise noted.
   Tolerance: (F): ±1%, (G): ±2%, (K): ±10%, (M): ±20% or ±5% unless otherwise noted.
4. **CAPACITORS:**
   Unit: p:pF or μF unless otherwise noted.
   Ratings: capacitor (μF)/ voltage (V) unless otherwise noted.
   Rated voltage: 50V except for electrolytic capacitors.
5. **COILS:**
   Unit: m:mH or μH unless otherwise noted.
6. **VOLTAGE AND CURRENT:**
   ⊐ or ← V :
   DC voltage (V) at no input signal unless otherwise noted.
   ⇦ mA or ← mA :
   DC current at no input signal unless otherwise noted.
7. **OTHERS:**
   - ⊘ or ⊘ : Adjusting point.
   - ◁⊲ : Measurement point.
   - The ⚠ mark found on some component parts indicates the importance of the safety factor of the parts. Therefore, when replacing, be sure to use parts of identical designation.
8. **SCH—□ ON THE SCHEMATIC DIAGRAM:**
   - SCH—□ indicates the drawing number of the schematic diagram. (SCH stands for schematic diagram.)
9. **SWITCHES** (Underline indicates switch position):

K01 : RECEIVER POWER		K23 : TV CONTROL	
K02 : TV POWER		K24 : 1	
K03 : TV FUNC		K25 : 2	
K04 : POWER		K26 : 3	
K05 : MODE CHECK		K27 : 4	
K06 : II ▲ FQ+		K28 : 5	
K07 : ◀◀ ◀ TV VOL−		K29 : 6	
K08 : ▶ ENTER		K30 : 7	
K09 : ▶▶ ▶ TV VOL+		K31 : 8	
K10 : ■ ▼ FQ−		K32 : 9	
K11 : VOLUME−		K33 : 0	
K12 : VOLUME+		K34 : +10 TV/VCR	
K13 : DISC−, CH−/SIDE A		K35 : DISC	
K14 : DISC+, CH+/SIDE B		K36 : VCR/TAPE 1 → SAT/TV → PHONO → CD ← LD/DVD ← TUNER	
K15 : VCR	ONE TOUCH OPERATION	K37 : RETURN	
K16 : SAT		K38 : MUTING	
K17 : CD		K39 : RESET	
K18 : LD/DVD		K40 : O.T.O. SET UP	
K20 : TUNER		K41 : PRESET RECALL	
K21 : SURROUND			
K22 : ALL OFF			

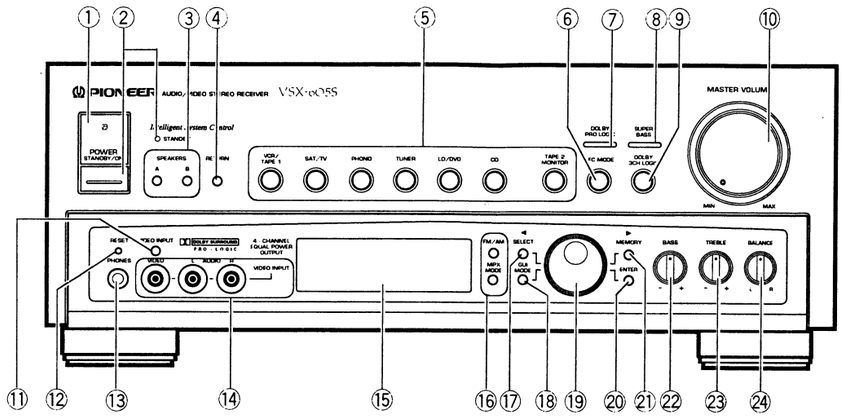
SCH-13



11. PANEL FACILITIES

FRONT PANEL FACILITIES (For VSX-605S)

Illustration shows multi-voltage model.



① Remote sensor

② POWER STANDBY/ ON switch STANDBY indicator (Multi-voltage and Round 2-pin AC plug models only)

This is the switch for electric power.

ON :When set to the ON position, power is supplied and the unit becomes operational.

STANDBY :When set to the STANDBY position, the main power flow is cut and the unit is no longer fully operational. A minute flow of power feeds the unit to maintain operation readiness.

(Multi-voltage and Round 2-pin AC plug models only)

The STANDBY indicator lights when the power is set to STANDBY, and goes out when set to ON.

(Timer ON/OFF possible)

When the unit is switched ON, ON/OFF control can be performed by means of the optional timer.

NOTE:

When the power is initially turned ON, muting will be applied to prevent sound from being output for about 5 seconds.

③ SPEAKERS buttons (A, B)

ON/OFF switches for the A and B speaker systems.

④ RETURN button

Press this button to return the receiver to its initial state. TUNER is selected at this initial state. Adjust the sound level by using the MASTER VOLUME control.

TAPE 2 MONITOR..... OFF
SFC MODE ..... OFF
SUPER BASS ..... OFF
PRO LOGIC..... OFF
3CH LOGIC ..... OFF
MUTE ..... OFF
FUNCTION ..... TUNER

And SPEAKERS buttons switch as follows.

Before pressing the RETURN button		After pressing
Both A and B are off	→	Only A is on
Only A is on	→	No change
Only B is on	→	Both A and B are on
Both A and B are on	→	No change

NOTE:

Press the RETURN button, and the frequency last selected is received. If reception of the frequency last selected is not possible, the mode automatically switches to AUTO TUNING.

⑤ Input selector buttons

VCR/TAPE 1
:Press when performing playback on a VCR unit or cassette deck.

SAT/TV :Press to watch TV broadcasts from the TV (Digital satellite system) tuner connected to the rear panel SAT/TV IN jacks.

PHONO :Press when playing records on a turntable.

TUNER :Press when listening to radio broadcasts.

LD/DVD :Press when performing playback on an LD or a DVD player.

CD :Press when playing compact discs on a CD player.

TAPE 2 MONITOR
:Press when performing playback on a second cassette deck and when monitoring recording.

⑥ SFC MODE button *

Each time you press it, the mode and the display indications change as follows.

STUDIO → SIMULATED SURROUND → ARENA → off → STUDIO

⑦ DOLBY PRO LOGIC button *

Switches DOLBY PRO LOGIC SURROUND on and off.

⑧ SUPER BASS button *

Press this button when you want to boost the bass.

⑨ DOLBY 3CH LOGIC button *

Select this setting when stereo-source regeneration and rear speakers are not connected and you wish to use the front L, front R, and center speakers to enjoy audio/visual material bearing the DOLBY SURROUND mark.

⑩ MASTER VOLUME control

Use it to simultaneously adjust the sound volume from the front, center, and rear speakers.

⑪ VIDEO INPUT selector button

Press when performing playback on a VCR connected to VIDEO INPUT jacks on the front panel.

⑫ RESET button

Use this when normal operation is not possible because of external influences such as static electricity or lightning, or when operations are not functioning even when operation buttons are pressed. Press this button to return to normal operating conditions.

⑬ PHONES jack

Connect the plug on your headphones to this jack. Set SPEAKERS A and B switches to OFF if you want to cut the sound from the speakers and listen to it only through the headphones.

⑭ VIDEO INPUT jacks

VIDEO components such as a VCR or TV camera, etc. can be connected.

⑮ Display section

⑯ Tuner operation buttons

FM/AM button:

Use this to switch between FM and AM frequency band reception.

MPX MODE button:

Use to select the auto stereo mode or monaural mode when listening to FM broadcasts. The monaural mode has been selected when the MONO indicator in the display section is lit.

Auto stereo mode

Normally, leave in this mode for reception. When a stereo FM broadcast is received, it will be automatically reproduced in stereo.

Monaural mode

When receiving distant stations or stations with weak broadcast signals, the input signal may be weak, thus resulting in increased noise during FM stereo broadcasts. In this event, setting the receiver to the monaural mode will reduce the noise. In this case, however, FM stereo broadcasts will be reproduced in monaural sound.

NOTE:

This button has no effect on reception of AM broadcasts.

⑰ SELECT button

Press this button to switch to the station mode. Then you can turn the Multi-jog to select a station.

When in the Frequency mode, tuning the Multi-jog raises or lowers the frequency.

Serves as a button for forwarding to the left digit (◄) when inputting CD titles.

⑱ GUI MODE button

Switches GUI MODE on and off.

⑲ Multi-jog

Use during tuner operation to select frequencies and station numbers. During GUI operation, use to move the on-screen cursor.

Serves as a jog for selecting characters when inputting CD titles.

⑳ ENTER button

Press this button when you are in the frequency preset mode, and the displayed frequency is memorized in the selected station. (Station indications stop flashing and stay lit.)

When GUI is ON, press to execute an operation selected with the multi-jog ⑲.

Use this button when you input a title of CD as well.

㉑ MEMORY button

Press this button to switch to the frequency preset mode. (When GUI is ON, it does not operate.)

Serves as a button for forwarding to the right digit (►) when inputting CD titles.

㉒ BASS control

Use to adjust the low-frequency level. Turn clockwise to boost bass, and counterclockwise to attenuate bass.

㉓ TREBLE control

Use to adjust the high-frequency level. Turn clockwise to boost treble, and counterclockwise to attenuate treble.

㉔ BALANCE control

Use to adjust the sound volume balance between left and right speakers.

L :Decreases the sound on the right side.

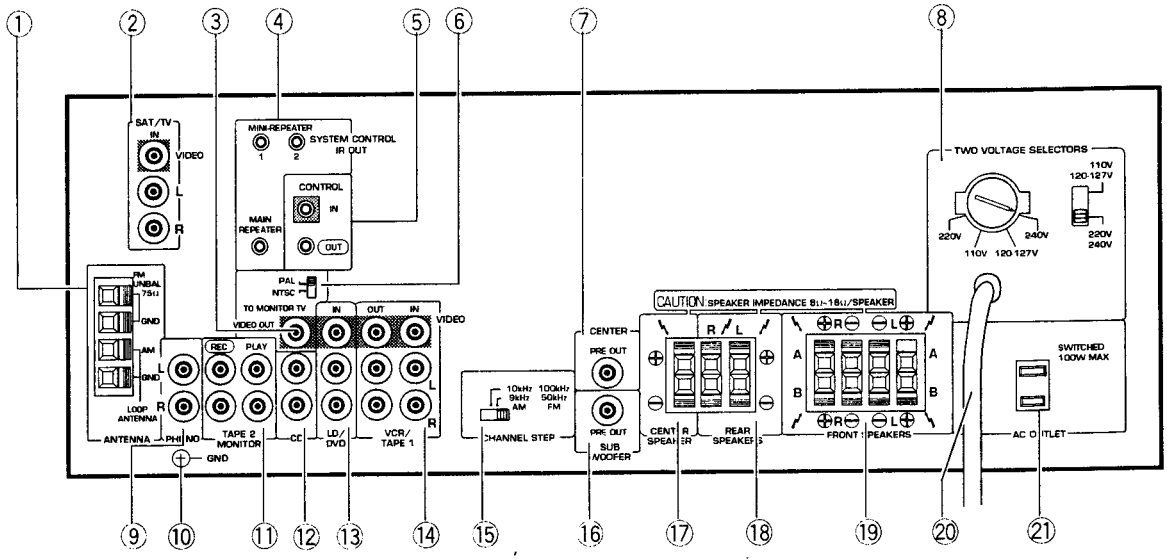
R :Decreases the sound on the left side.

Usually, left and right volume levels should be the same.

* Setting is memorized separately for each input selector button.

REAR PANEL FACILITIES (For VSX-605S)

Illustration shows Multi-voltage model.



① FM/AM ANTENNA terminals

Use these antenna terminals for reception of normal FM and AM broadcasts.

② SAT(Satellite)/TV jacks (input)

Use these jacks if you wish to connect a TV (Digital satellite system) tuner with both video and audio optputs.

③ VIDEO OUT (TO MONITOR TV) jack

Connect to a monitor TV or to TV sets with video input terminals to watch program materials from a VCR or LD player connected to this unit.

④ SYSTEM CONTROL IR OUT jacks

To operate other components with this unit's remote control or with GUI, connect the supplied repeater.

MINI-REPEATER 1,2:

connect the supplied MINI-REPEATER.

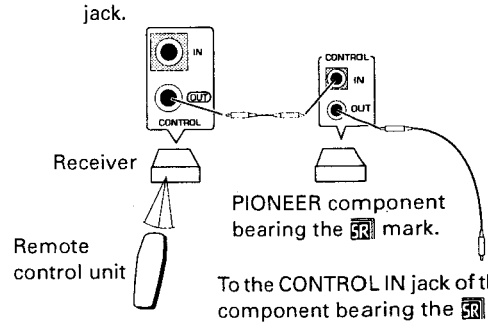
MAIN-REPEATER:

connect the supplied MAIN-REPEATER.

⑤ CONTROL IN/OUT jacks

IN :Connects this jack to the control out jack of an unit attached 5R mark using a commercially available cord with mini-plugs (without load). The remote control signal sensor of this unit will not receive the remote control signal while connecting. The unit attached 5R mark can be operated using a remote control through the connected cord from the remote control sensor of another unit attached 5R mark.

OUT :Connects this jack to the control input jack of an unit attached 5R mark using a commercially available cord with mini-plugs (without load).
Outputs the remote control signal to another unit from this unit or the relay signal from the control input jack.



NOTE:

- If there is a plug in this unit's CONTROL IN jack, ISC and GUI operations using the remote control unit are not possible.
- The remote control unit provided with this unit adopts a different method from the remote control units of Pioneer systems. Consequently, this unit and other components will not operate when the remote control unit is directed at the remote control signal sensor window of the connected components.
  Other components will not operate unless a signal is received by the sensor window of this unit, and this unit consequently converts the signal received to the remote control signal corresponding to the other component.

⑥ PAL/NTSC switch (Multi-voltage model only)

⑦ CENTER PRE OUT jack
When a separate power amplifier is used to drive the surround center speaker, connect the power amplifier to this jack.

⑧ TWO VOLTAGE SELECTORS switches (Multi-voltage model only)

⑨ PHONO input jacks
Connect to the output cables from a turntable.

⑩ GND terminal
Connect the turntable ground lead to this terminal.
NOTE:
This is used to decrease noise and does not serve as a complete ground.

⑪ TAPE 2 MONITOR jacks
Connect to audio components such as a second cassette deck or a graphic equalizer.

⑫ CD input jacks
Connect to the output jacks of a compact disc player.

⑬ LD/DVD input jacks
Connect to an LD player's output jacks (audio, video) or a DVD player's output jacks (audio, video).

⑭ VCR/TAPE 1 jacks
Connect to a VCR or the first cassette deck. With a VCR, also connect the video jacks.

⑮ CHANNEL STEP switch (Multi-voltage model only)

⑯ SUB WOOFER PRE OUT jack
If you want to boost the low frequencies, connect to a subwoofer power amplifier.

⑰ CENTER SPEAKER terminals
Connect the center speaker to these terminals.
NOTE:
Do not allow any of the cord's conductors to protrude from the terminals or touch any other conductors. Malfunctions or breakdowns may occur when conductors come into contact with each other. Use a center speaker with an impedance of 8 Ω to 16 Ω

⑱ REAR SPEAKERS terminals
Connect the rear speakers to these terminals.
NOTES:
- Do not allow any of the cord's conductors to protrude from the terminals or touch any other conductors. Malfunctions or breakdowns may occur when conductors come into contact with each other. Use rear speakers with an impedance of 8 Ω to 16 Ω.
- Be sure to connect two speakers (L, R). There will be no sound if only one speaker is connected.

⑲ FRONT SPEAKERS terminals
A :Connect to the first set of speakers.
B :Connect to the second set of speakers.
NOTE:
Do not allow any of the cord's conductors to protrude from the terminals or touch any other conductors. Malfunctions or breakdowns may occur when conductors come into contact with each other. Use front speakers with an impedance of 8 Ω to 16 Ω.

⑳ Power cord

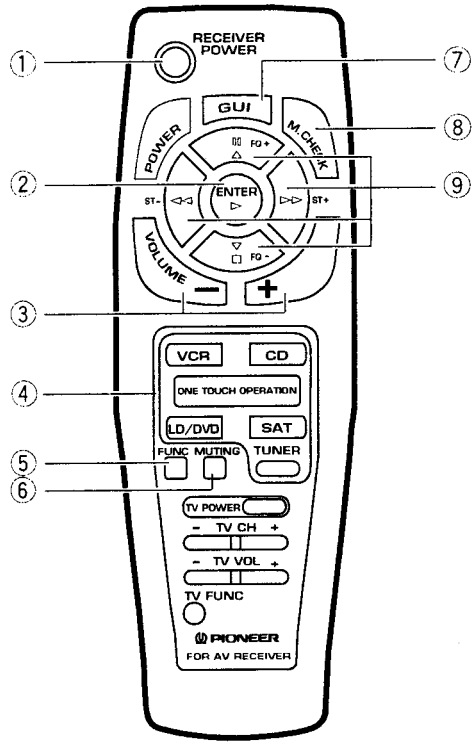
㉑ AC OUTLET (Multi-voltage, U.S. and Canadian models only)
(U.S. and Canadian models)
[SWITCHED 100 W (0.8 A) MAX]
Power supplied through this outlet is turned on and off by the receiver's POWER switch. Total electrical power consumption of connected equipment should not exceed 100 W (0.8 A).

(Multi-voltage model)
[SWITCHED 100 W MAX]
Power supplied through this outlet is turned on and off by the receiver's POWER switch. Total electrical power consumption of connected equipment should not exceed 100 W.

NOTES:
- This unit should be disconnected by removing the power plug from the wall socket when not in regular use, e.g. when on vacation.
- Do not connect appliances with high power consumption such as heaters, irons, or television sets to this AC OUTLET in order to avoid overheating and fire risk. This can cause the receiver to malfunction.

CAUTION:
DO NO CONNECT MONITOR OR TV SET.

RECEIVER CONTROL BUTTONS (For VSX-605S)



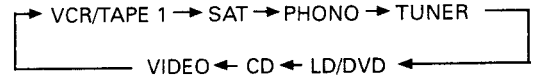
① RECEIVER POWER button
Switches the receiver power between ON and STANDBY.

② ENTER button
When GUI is ON, press to execute an operation selected with the Select/Adjust buttons.
When the GUI mode is OFF, use to operate other components.

③ VOLUME +, – buttons
Adjusts the overall volume.

④ ONE TOUCH OPERATION buttons
VCR, CD, LD/DVD, SAT, TUNER:
Pressing these buttons automatically calls up "ONE TOUCH OPERATION SET UP" settings, made using GUI.
Also, if power to this unit is OFF, it is switched ON, and operation automatically switches to the selected function.
When you press any of the ONE TOUCH OPERATION buttons, the GUI MODE becomes off.

⑤ FUNC. (function) button
Press to select the receiver input.



⑥ MUTING button
Used to temporarily mute the sound. When it's in the on position, the "– MUTING –" indicator appears on the display. The volume is restored when pressed again.

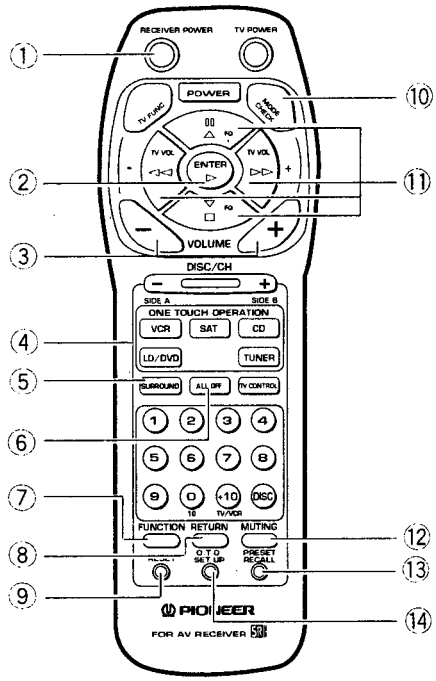
⑦ GUI button
Switches GUI MODE on and off.
When the GUI mode is ON, the Select/Adjust button ⑨ (△, ▷, ▽, ◁) lights.

⑧ M. CHECK (Mode check) button
Indicates whether the GUI MODE is on or off.
When it is on, △, ▷, ▽, ◁ light. When it is off, a ④ ONE TOUCH OPERATION button lights to indicate current function excluding TUNER.
When pressed while lit, the ONE TOUCH OPERATION buttons light up in order, and the component to be remote controlled can be selected without having to change the input of this unit.

⑨ Select/Adjust buttons (△, ▷, ▽, ◁)
When the GUI mode is ON, △, ▷, ▽, and ◁ light.
When using the GUI function with the on-screen display, use for such operations as selection and adjustments (by moving the cursor).
When the GUI mode is OFF, use to operate other components.

RECEIVER CONTROL BUTTONS (For VSX-505S)

Buttons marked * have the same functions as those of the unit.



① * RECEIVER POWER button

Switches the receiver power between ON and STANDBY.

② ENTER button

Decides each mode when the PRESET RECALL, O.T.O. SET UP or SURROUND button is pressed.

③ * VOLUME +, – buttons

Adjusts the overall volume.

④ ONE TOUCH OPERATION buttons

VCR, CD, LD/DVD, SAT, TV, TUNER:

Pressing these buttons automatically calls up "SET UP THE ONE TOUCH OPERATION OF THE EQUIPMENT TO BE OPERATED (O.T.O. SET UP)" settings, made using "EASY OPERATION OF OTHER MAKER'S PRODUCTS BY REMOTE CONTROL UNIT (REMOTE SET UP)".

Also, if power to this unit is OFF, it is switched ON, and operation automatically switches to the selected function.

⑤ SURROUND button

Selects the various SURROUND effects. Use together with the Select/Adjust buttons(△, ▷▷, ▽, ◁◁).

⑥ ALL OFF button

Turn the audio/video system OFF.

⑦ FUNCTION button

Press to select the receiver input.

VCR/TAPE 1 → SAT/TV → PHONO → TUNER ← LD/DVD ← CD ←

⑧ * RETURN button

⑨ RESET button

Use this when normal operation is not possible because of external influences such as static electricity or lightning, or when operations are not functioning even when operation buttons are pressed. Press this button to return to normal operating conditions.

⑩ MODE CHECK button

Indicates whether the SURROUND mode or the REMOTE SET UP mode is on or off.

When it is on, △, ▷, ▽, ◁ light. When it is off, a ④ ONE TOUCH OPERATION button lights to indicate the current function.

If you press the button again while it is lit, remote control functions change. When the remote control is in the SURROUND mode or the REMOTE SET UP mode, the ⑪ Select/Adjust buttons (△, ▷, ▽, ◁) light.

⑪ Select/Adjust buttons (△, ▷▷, ▽, ◁◁)

When the SURROUND mode or the "EASY OPERATION OF OTHER MAKER'S PRODUCTS BY REMOTE CONTROL UNIT (REMOTE SET UP)" mode is ON, △, ▷, ▽, and ◁ light.

When using the SURROUND mode or the "EASY OPERATION OF OTHER MAKER'S PRODUCTS BY REMOTE CONTROL UNIT (REMOTE SET UP)" mode with the display, use for such operations as selection and adjustments (by moving the cursor).

When the SURROUND mode or the "EASY OPERATION OF OTHER MAKER'S PRODUCTS BY REMOTE CONTROL UNIT (REMOTE SET UP)" mode is OFF, use to operate other components.

⑫ MUTING button

Used to temporarily mute the sound. When it's in the on position, the "MUTING" indications is displayed. The volume is restored when pressed again.

⑬ PRESET RECALL button

Presets the remote control codes of other maker's products (maker name and code number) recorded in the remote control unit to enable operation of these products.

⑭ O. T. O. SET UP (One touch operation set up) button

Sets up one touch operation for the equipment in the "SET UP THE ONE TOUCH OPERATION OF THE EQUIPMENT TO BE OPERATED (O.T.O. SET UP)" mode after performing the set up using the PRESET RECALL button.

12. SPECIFICATIONS

Amplifier Section

Continuous average power output of 150 watts* per channel, min., at 8 ohms, from 20 Hz to 20,000 Hz with no more than 0.09 % total harmonic distortion (front).**

[Multi-voltage model only]
Continuous Power Output (DIN)
Front (1 kHz, T.H.D. 1 %, 8 Ω) ..... 165 W + 165 W
[U.S. and Canadian models only]
Continuous Power Output
Front ..... 135 W + 135 W (1 kHz, 0.8 %, 8 Ω)
Center ..... 135 W (1 kHz, 0.8 %, 8 Ω)
Rear ..... 135 W (1 kHz, 0.8 %, 8 Ω)
Dynamic Power (2 Ω/4 Ω/8 Ω) ..... 350 W/280 W/180 W

[Round 2-pin AC plug model only]
Continuous Power Output
Front (1 kHz, T.H.D. 1 %, 4 Ω, DIN) ..... 120 W + 120 W
Front ..... 80 W + 80 W (1 kHz, 1 %, 4 Ω)
Center ..... 80 W (1 kHz, 1 %, 4 Ω)
Rear ..... 80 W (1 kHz, 1 %, 4 Ω)
Dynamic Power (2 Ω/ 4 Ω/ 8 Ω) ..... 180 W/ 150 W/ 110 W
Input (Sensitivity/Impedance)
PHONO MM ..... 2.8 mV/47 kΩ
SAT/TV, CD, VCR/TAPE 1, TAPE 2
LD/DVD, VIDEO ..... 200 mV/47 kΩ
Phono Overload Level (T.H.D. 0.1 %, 1kHz)
PHONO MM ..... 100 mV
Frequency Response
PHONO MM ..... 20 Hz to 20,000 Hz ± 0.3 dB
SAT/TV, CD, VCR/TAPE 1, TAPE 2
LD/DVD, VIDEO ..... 5 Hz to 100,000 Hz $^{+0}_{-3}$ dB
Output (Level/Impedance)
VCR/TAPE 1 REC, TAPE 2 REC ..... 200 mV/2.2 kΩ
Tone Control
BASS ..... ± 8 dB (150 Hz)
TREBLE ..... ± 8 dB (10 kHz)
SUPER BASS ..... + 8 dB (80 Hz)
Signal-to-Noise Ratio (IHF, short circuited, A network)
PHONO MM ..... 76 dB
SAT/TV, CD, VCR/TAPE 1, TAPE 2
LD/DVD, VIDEO ..... 97 dB
Signal-to-Noise Ratio [EIA, at 1 W (1kHz)]
PHONO MM ..... 77 dB
SAT/TV, CD, VCR/TAPE 1, TAPE 2
LD/DVD, VIDEO ..... 80 dB

* Measured pursuant to the Federal Trade Commission's Trade Regulation rule on Power Output Claims for Amplifiers.
** Measured by Audio Spectrum Analyzer.

VIDEO Section

Input (Sensitivity/Impedance)
SAT/TV, VCR, LD/DVD, VIDEO ..... 1 Vp-p/75 Ω
Output (Level/Impedance)
VCR REC, MONITOR TV ..... 1 Vp-p/75 Ω
Frequency Response
SAT/TV, VCR, LD/DVD, VIDEO
→ MONITOR ..... 5 Hz to 7 MHz $^{+0}_{-3}$dB
Signal-to-Noise Ratio ..... 55 dB
Cross Talk ..... 55 dB
TV color system
Round 2-pin AC plug model ..... PAL
U.S. and Canadian models ..... NTSC
Multi-voltage model ..... PAL/NTSC (Switchable)

FM Tuner Section

Frequency Range ..... 87.5 MHz to 108 MHz
Usable Sensitivity ..... Mono: 11.2 dBf, IHF (1.0 µV/75 Ω)
50 dB Quieting Sensitivity ..... Mono: 16.8 dBf
Stereo: 38.6 dBf
Signal-to-Noise Ratio ..... Mono: 73 dB (at 85 dBf)
Stereo: 70 dB (at 85 dBf)
Distortion ..... Stereo: 0.5 % (1kHz)
Alternate Channel Selectivity ..... 60 dB (400 kHz)
Stereo Separation ..... 40 dB (1 kHz)
Frequency Response ..... 30 Hz to 15 kHz (± 1) dB
Antenna Input ..... 75 Ω unbalanced

AM Tuner Section

Frequency Range ..... 531 kHz to 1,602 kHz (9 kHz step)
530 kHz to 1,700 kHz (10 kHz step)
Sensitivity (IHF, Loop antenna) ..... 350 µV/m
Selectivity ..... 25 dB
Signal-to-Noise Ratio ..... 50 dB
Antenna ..... Loop antenna

Miscellaneous

Power Requirements
Round 2-pin AC plug model ..... AC 220-230 V, 50/60 Hz
U.S. and Canadian models ..... AC 120 V, 60 Hz
Multi-voltage model ..... AC 110 V/120-127 V/220 V/240 V (Switchable), 50/60 Hz
Power Consumption
Round 2-pin AC plug model ..... 700 W
U.S. and Canadian models ..... 340 W, 500 VA
Multi-voltage model ..... 905 W
In Standby Condition ..... 3 W
AC Outlet (Multi-voltage, U.S. and Canadian models only)
U.S. and Canadian models
SWITCHED ..... 100 W (0.8 A) MAX
Multi-voltage model
SWITCHED ..... 100 W MAX
Dimensions ..... 420 (W) × 160 (H) × 300 (D) mm
16-9/16 (W) × 6-5/16 (H) × 11-13/16 (D) in
Weight (without package)
VSX-605S ..... 9.8 kg (21 lb 10 oz)
VSX-635S ..... 9.6 kg (21 lb 3 oz)

Furnished Parts

FM Antenna 1
AM Loop Antenna 1
Dry Cell Batteries (AA/R6P) 2
Remote Control Unit 1
Mini-Repeater 1
Main-Repeater 1
Operating Instructions 1

NOTE:
Specifications and the design are subject to possible modifications without notice, due to improvements.